

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 08:15:26 ON 20 APR 2005

=> fil .bec

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,  
ESBIOBASE, BIOTECHNO, WPIDS' ENTERED AT 08:15:52 ON 20 APR 2005  
ALL COPYRIGHTS AND RESTRICTIONS APPLY. SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s peg or polyethylene glycol

FILE 'MEDLINE'

8959 PEG

33678 POLYETHYLENE

22000 GLYCOL

9086 POLYETHYLENE GLYCOL

(POLYETHYLENE(W)GLYCOL)

L1 14753 PEG OR POLYETHYLENE GLYCOL

FILE 'SCISEARCH'

14973 PEG

49789 POLYETHYLENE

36174 GLYCOL

11455 POLYETHYLENE GLYCOL

(POLYETHYLENE(W)GLYCOL)

L2 21749 PEG OR POLYETHYLENE GLYCOL

FILE 'LIFESCI'

2228 PEG

4480 "POLYETHYLENE"

5906 "GLYCOL"

3000 POLYETHYLENE GLYCOL

("POLYETHYLENE" (W) "GLYCOL")

L3 4068 PEG OR POLYETHYLENE GLYCOL

FILE 'BIOTECHDS'

6044 PEG

3945 POLYETHYLENE

4515 GLYCOL

3036 POLYETHYLENE GLYCOL

(POLYETHYLENE(W)GLYCOL)

L4 7723 PEG OR POLYETHYLENE GLYCOL

FILE 'BIOSIS'

11854 PEG

23925 POLYETHYLENE

32559 GLYCOL

14532 POLYETHYLENE GLYCOL

(POLYETHYLENE(W)GLYCOL)

L5 20621 PEG OR POLYETHYLENE GLYCOL

FILE 'EMBASE'

8915 PEG

18670 "POLYETHYLENE"

28246 "GLYCOL"

8533 POLYETHYLENE GLYCOL

("POLYETHYLENE" (W) "GLYCOL")

L6 14197 PEG OR POLYETHYLENE GLYCOL

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FILE 'HCAPLUS'
    31703 PEG
    323028 POLYETHYLENE
    328789 GLYCOL
    90639 POLYETHYLENE GLYCOL
        (POLYETHYLENE(W)GLYCOL)
L7      108449 PEG OR POLYETHYLENE GLYCOL

FILE 'NTIS'
    321 PEG
    5591 POLYETHYLENE
    1894 GLYCOL
    253 POLYETHYLENE GLYCOL
        (POLYETHYLENE(W)GLYCOL)
L8      499 PEG OR POLYETHYLENE GLYCOL

FILE 'ESBIOBASE'
    3672 PEG
    4796 POLYETHYLENE
    6391 GLYCOL
    3005 POLYETHYLENE GLYCOL
        (POLYETHYLENE(W)GLYCOL)
L9      5248 PEG OR POLYETHYLENE GLYCOL

FILE 'BIOTECHNO'
    2816 PEG
    4665 POLYETHYLENE
    7260 GLYCOL
    3167 POLYETHYLENE GLYCOL
        (POLYETHYLENE(W)GLYCOL)
L10     4868 PEG OR POLYETHYLENE GLYCOL

FILE 'WPIDS'
    15802 PEG
    197943 POLYETHYLENE
    109036 GLYCOL
    26705 POLYETHYLENE GLYCOL
        (POLYETHYLENE(W)GLYCOL)
L11     39735 PEG OR POLYETHYLENE GLYCOL

TOTAL FOR ALL FILES
L12     241910 PEG OR POLYETHYLENE GLYCOL

=> s l12(5a)crosslink?(5a) (protein# or enzyme#)
FILE 'MEDLINE'
    10817 CROSSLINK?
    1759365 PROTEIN#
    730058 ENZYME#
L13     1 L1 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'SCISEARCH'
    28041 CROSSLINK?
    1400079 PROTEIN#
    459972 ENZYME#
L14     3 L2 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'LIFESCI'
    4165 CROSSLINK?
    522211 PROTEIN#
    197816 ENZYME#
L15     1 L3 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'BIOTECHDS'

```

2898 CROSSLINK?  
136948 PROTEIN#  
122684 ENZYME#  
L16 4 L4 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'BIOSIS'  
14929 CROSSLINK?  
1669165 PROTEIN#  
772072 ENZYME#  
L17 0 L5 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'EMBASE'  
11291 CROSSLINK?  
1410253 PROTEIN#  
787204 ENZYME#  
L18 1 L6 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'HCAPLUS'  
249495 CROSSLINK?  
2014283 PROTEIN#  
929021 ENZYME#  
L19 22 L7 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'NTIS'  
3105 CROSSLINK?  
18093 PROTEIN#  
12052 ENZYME#  
L20 0 L8 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'ESBIOBASE'  
4417 CROSSLINK?  
655527 PROTEIN#  
226276 ENZYME#  
L21 1 L9 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'BIOTECHNO'  
4956 CROSSLINK?  
653195 PROTEIN#  
353854 ENZYME#  
L22 1 L10 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

FILE 'WPIDS'  
77310 CROSSLINK?  
142087 PROTEIN#  
78914 ENZYME#  
L23 4 L11 (5A)CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

TOTAL FOR ALL FILES  
L24 38 L12 (5A) CROSSLINK?(5A) (PROTEIN# OR ENZYME#)

=> dup rem l24  
PROCESSING COMPLETED FOR L24  
L25 32 DUP REM L24 (6 DUPLICATES REMOVED)

=> d tot

L25 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
TI Crosslinking of proteins and other biomolecules and organic molecules  
using metal coordination complexes and oxidizing agents  
SO PCT Int. Appl., 35 pp.  
CODEN: PIXXD2  
IN Stewart, Russell John; Kiser, Patrick Franklin; Staynor, Richard Scott  
AN 2005:182803 HCAPLUS  
DN 142:276436

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005019421	A2	20050303	WO 2004-US25958	20040811
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

L25 ANSWER 2 OF 32 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 TI Knot pusher for closing suture sites in body tissue, comprises body that engages suture knot, and fitting for introducing liquid closure material for discharge.

PI	US 2003040760	A1	20030227 (200358)*	37	A61B017-04
	WO 2004012582	A2	20040212 (200413)	EN	A61B000-00
	RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW AU 2003269940 A1 20040223 (200453) A61B017-04				
IN	ADDIS, B; BROWNE, D; CHEUNG, D; HNOJEWYJ, O				

L25 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Chemical modification of enzymes to improve their catalytic performance  
 SO Fenzi Cuihua (2002), 16(6), 475-480  
 CODEN: FECUEN; ISSN: 1001-3555  
 AU Liu, Jian-zhong; Song, Hai-yan; Weng, Li-ping; Ji, Liang-nian  
 AN 2003:170509 HCAPLUS  
 DN 138:381181

L25 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Preparation of protein-based PEG hydrogels  
 SO PCT Int. Appl., 63 pp.  
 CODEN: PIXXD2  
 IN Faure, Marie-pierre; Pinard, Karl; Brisson, Jean-francois  
 AN 2001:747876 HCAPLUS  
 DN 135:294022

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001074928	A1	20011011	WO 2001-CA482	20010404
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1280849	A1	20030205	EP 2001-923426	20010404
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

L25 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Delivery systems using preformed biodegradable polymer compositions including crosslinked proteins

SO PCT Int. Appl., 45 pp.  
 CODEN: PIXXD2  
 IN Truong, Myhanh T.; Pournoor, Kaveh; Choi, Hye-Ok; Velasquez, David J.;  
 Ferber, Richard H.; Bernatchez, Stephanie F.  
 AN 2001:617791 HCAPLUS  
 DN 135:200442

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001060335	A2	20010823	WO 2001-US5020	20010216
	WO 2001060335	A3	20020418		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2398668	AA	20010823	CA 2001-2398668	20010216
	US 2002009492	A1	20020124	US 2001-784934	20010216
	US 6576263	B2	20030610		
	BR 2001008471	A	20021029	BR 2001-8471	20010216
	EP 1257257	A2	20021120	EP 2001-910817	20010216
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003522780	T2	20030729	JP 2001-559433	20010216

L25 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Peptide and protein PEGylation. A review of problems and solutions  
 SO Biomaterials (2001), 22(5), 405-417  
 CODEN: BIMADU; ISSN: 0142-9612  
 AU Veronese, F. M.  
 AN 2001:23413 HCAPLUS  
 DN 134:315938

L25 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Protein release from physically crosslinked hydrogels of the PLA/PEO/PLA triblock copolymer-type  
 SO Biomaterials (2001), 22(4), 363-369  
 CODEN: BIMADU; ISSN: 0142-9612  
 AU Molina, I.; Li, S.; Martinez, M. B.; Vert, M.  
 AN 2000:891018 HCAPLUS  
 DN 134:285525

L25 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Modification of Oligo(poly(ethylene glycol) fumarate) Macromer with a GRGD Peptide for the Preparation of Functionalized Polymer Networks  
 SO Biomacromolecules (2001), 2(1), 255-261  
 CODEN: BOMAF6; ISSN: 1525-7797  
 AU Jo, Seongbong; Shin, Heungsoo; Mikos, Antonios G.  
 AN 2001:36321 HCAPLUS  
 DN 134:252975

L25 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Protein-containing hydrogels  
 SO Eur. Pat. Appl., 21 pp.  
 CODEN: EPXXDW  
 IN Ettner, Norbert; Schink, Michael; Schreiber, Joerg; Meier, Wolfgang; Sauer, Marc  
 AN 2000:553213 HCAPLUS  
 DN 133:155497

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 1025860	A2	20000809	EP 2000-100556	20000112
	EP 1025860	A3	20020619		
	EP 1025860	B1	20050112		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	DE 19903655	A1	20000810	DE 1999-19903655	19990129

L25 ANSWER 10 OF 32 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

TI Barrier material, to close vascular puncture sites to prevent bleeding after surgery or trauma, comprises matrix of protein and polymer.

PI WO 2000012018 A1 20000309 (200020)\* EN 118 A61B017-36

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD  
GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV  
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT  
UA UG US UZ VN YU ZW

AU 9955870 A 20000321 (200031)

EP 1107813 A1 20010620 (200135) EN A61M037-00

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI

US 2001018598 A1 20010830 (200151) A61D001-00

US 2001031948 A1 20011018 (200166) A61M005-178

US 2002032463 A1 20020314 (200222) A61D001-00

US 6371975 B2 20020416 (200232) A61B017-08

JP 2002525137 W 20020813 (200267) 118 A61L031-00

US 6458147 B1 20021001 (200268) A61B017-04

US 2002161399 A1 20021031 (200274) A61D001-00

US 6475182 B1 20021105 (200276) A61M037-00

AU 759991 B 20030501 (200339) A61B017-36

CA 2435050 A1 20000309 (200374) EN A61L024-04

IN CRUISE, G M; HNOJEWYJ, O; EDWARDS, S D; GOUGH, E

L25 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN

TI Control and Prediction of Gelation Kinetics in Enzymatically Cross-Linked Poly(ethylene glycol) Hydrogels

SO Macromolecules (2000), 33(15), 5476-5480  
CODEN: MAMOBX; ISSN: 0024-9297

AU Sperinde, Jeffrey J.; Griffith, Linda G.

AN 2000:453418 HCAPLUS

DN 133:177591

L25 ANSWER 12 OF 32 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

TI Photoimmobilization of organophosphorus-hydrolase within a PEG-based hydrogel;  
effect of immobilization on **crosslinked polyethylene glycol**-based hydrogel support on **enzyme** activity and stability

SO Biotechnol.Bioeng.; (1999) 65, 5, 580-88  
CODEN: BIBIAU ISSN: 0006-3592

AU Andreopoulos F M; Roberts M J; Bentley M D; Harris J M; Beckman E J;  
\*Russell A J

AN 1999-14977 BIOTECHDS

L25 ANSWER 13 OF 32 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

TI Optimization of Pseudomonas cepacia lipase preparations for catalysts in organic solvents;  
transesterification

SO Biotechnol.Bioeng.; (1999) 62, 5, 554-61  
CODEN: BIBIAU ISSN: 0006-3592

AU Secundo F; Spadaro S; Carrea G; Overbeeke P L

AN 1999-03096 BIOTECHDS

L25 ANSWER 14 OF 32 MEDLINE on STN DUPLICATE 1  
 TI Chemical modification of enzymes for enhanced functionality.  
 SO Current opinion in biotechnology, (1999 Aug) 10 (4) 324-30. Ref: 41  
 Journal code: 9100492. ISSN: 0958-1669.  
 AU DeSantis G; Jones J B  
 AN 1999380784 MEDLINE

L25 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Crosslinked protein crystals as universal separation media  
 SO PCT Int. Appl., 115 pp.  
 CODEN: PIXXD2  
 IN Margolin, Alexey L.; Vilenchik, Lev Z.  
 AN 1998:208450 HCAPLUS  
 DN 128:267960

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9813119	A1	19980402	WO 1997-US17167	19970924
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9747381	A1	19980417	AU 1997-47381	19970924

L25 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Non-crosslinked protein particles for therapeutic and diagnostic use  
 SO U.S., 21 pp., Cont.-in-part of U.S. 5,616,311.  
 CODEN: USXXAM  
 IN Yen, Richard C. K.  
 AN 1998:175365 HCAPLUS  
 DN 128:235150

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5725804	A	19980310	US 1995-471650	19950606
	US 5308620	A	19940503	US 1992-959560	19921013
	US 5616311	A	19970401	US 1994-212546	19940314
	CA 2220895	AA	19961212	CA 1996-2220895	19960604
	WO 9639128	A1	19961212	WO 1996-US9458	19960604
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA				
	AU 9661002	A1	19961224	AU 1996-61002	19960604
	EP 831793	A1	19980401	EP 1996-918313	19960604
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
	JP 11507630	T2	19990706	JP 1996-501772	19960604
	US 6391343	B1	20020521	US 1998-952765	19980410
	US 2002142046	A1	20021003	US 2002-42834	20020108

L25 ANSWER 17 OF 32 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN  
 TI Enhancement of acid proteinase production by the fungus Humicola lutea 120-5 immobilized in crosslinked poly(vinyl alcohol) mixed with poly(ethylene glycol);  
 acid protease production following fungus immobilization  
 SO Process Biochem.; (1998) 33, 7, 725-28  
 CODEN: PBCHE5 ISSN: 0032-9592  
 AU Alekseiva P; Petricheva E; Konstatinov H  
 AN 1999-08447 BIOTECHDS

L25 ANSWER 18 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 TI MECHANICAL-PROPERTIES OF SOY PROTEIN-POLYETHYLENE RIBBON AND FILM EXTRUDATES  
 SO TRANSACTIONS OF THE ASAE, (MAR/APR 1996) Vol. 39, No. 2, pp. 611-615. ISSN: 0001-2351.  
 AU GHORPADE V M; HANNA M A (Reprint)  
 AN 96:358795 SCISEARCH

L25 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Crosslinked poly(ethylene glycol) networks as reservoirs for protein delivery  
 SO Journal of Applied Polymer Science (1996), 59(3), 459-66  
 CODEN: JAPNAB; ISSN: 0021-8995  
 AU Bromberg, Lev  
 AN 1995:1004718 HCAPLUS  
 DN 124:127031

L25 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Sulfonamide derivatives and their use  
 SO PCT Int. Appl., 74 pp.  
 CODEN: PIXXD2  
 IN Baldwin, John J.; Ohlmeyer, Michael H. J.; Henderson, Ian  
 AN 1995:951322 HCAPLUS  
 DN 123:350246

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9524186	A1	19950914	WO 1995-US3223	19950310
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2183428	AA	19950914	CA 1995-2183428	19950310
AU 9519991	A1	19950925	AU 1995-19991	19950310
AU 690656	B2	19980430		
EP 751765	A1	19970108	EP 1995-913701	19950310
EP 751765	B1	20030507		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09510442	T2	19971021	JP 1995-523709	19950310
AT 239680	E	20030515	AT 1995-913701	19950310
ES 2199247	T3	20040216	ES 1995-913701	19950310
US 5618825	A	19970408	US 1995-482489	19950607
US 5756810	A	19980526	US 1996-714065	19960911

L25 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Direct visualization of enzyme inhibitors using a portion mixing inhibitor library containing a quenched fluorogenic peptide substrate. Part 1. Inhibitors for subtilisin Carlsberg  
 SO Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1995), (12), 1591-6  
 CODEN: JCPRB4; ISSN: 0300-922X  
 AU Meldal, Morten; Svendsen, Ib  
 AN 1995:647239 HCAPLUS  
 DN 123:78136

L25 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Densely crosslinked polymer networks of poly(ethylene glycol) in trimethylolpropane triacrylate for cell-adhesion-resistant surfaces  
 SO Journal of Biomedical Materials Research (1995), 29(2), 207-15  
 CODEN: JBMRBG; ISSN: 0021-9304  
 AU Drumheller, Paul D.; Hubbell, Jeffrey A.  
 AN 1995:348766 HCAPLUS  
 DN 122:114853



L25 ANSWER 23 OF 32 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
 TI New active carbonate(s) of polyalkylene oxide(s) - for modification of  
 polypeptide(s).  
 PI US 5324844 A 19940628 (199425)\* 10 C07D207-46  
 IN ZALIPSKY, S

L25 ANSWER 24 OF 32 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI INTERACTIONS OF ENZYMES AND FUNGI WITH CROSS-LINKED POLYURETHANES PREPARED  
 FOR BIOMEDICAL APPLICATIONS  
 SO MEDICAL PROGRESS THROUGH TECHNOLOGY, (1994) Vol. 20, No. 3-4, pp. 261-270.  
 ISSN: 0047-6552.  
 AU JAYABALAN M (Reprint); SHUNMUGAKUMAR N  
 AN 95:30482 SCISEARCH

L25 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Stabilization of **protein** drug (catalase) by **crosslinking**  
 to human serum albumin with **polyethylene glycol**  
 SO (1993) 150 pp. Avail.: Univ. Microfilms Int., Order No. DA9511739  
 From: Diss. Abstr. Int. B 1995, 55(12) 5355  
 AU Lo, Shi-Lung  
 AN 1995:668067 HCAPLUS  
 DN 123:93022

L25 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Enzyme electrode with redox enzyme and polymer with multiple redox centers  
 SO U.S., 15 pp.  
 CODEN: USXXAM  
 IN Gregg, Brian A.; Heller, Adam  
 AN 1994:129005 HCAPLUS  
 DN 120:129005

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5262035	A	19931116	US 1989-389226	19890802
	US 5264104	A	19931123	US 1992-880760	19920508
	US 5264105	A	19931123	US 1993-32806	19930317
	WO 9323744	A1	19931125	WO 1993-US2588	19930319
	W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR,				
	LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,				
	BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
	AU 9339274	A1	19931213	AU 1993-39274	19930319
	EP 639268	A1	19950222	EP 1993-908458	19930319
	R: DE, DK, FR, GB, IT				
	JP 07506674	T2	19950720	JP 1993-520191	19930319

L25 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Capillary column  
 SO Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 IN Mizuno, Masako; Tochigi, Kenji  
 AN 1994:338112 HCAPLUS  
 DN 120:338112

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05288716	A2	19931102	JP 1992-88909	19920409

L25 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Protein crosslinking reagents cleavable within acidified intracellular  
 vesicles  
 SO U. S. Pat. Appl., 54 pp. Avail. NTIS Order No. PAT-APPL-6-204 163.  
 CODEN: XAXXAV  
 IN Neville, D. M.; Srinivasachar, K.

AN 1990:112047 HCAPLUS

DN 112:112047

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 204163	A0	19890315	US 1988-204163	19880601
	US 5066490	A	19911119		
	WO 8911867	A1	19891214	WO 1989-US2349	19890531
	W: AU, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	AU 8937684	A1	19900105	AU 1989-37684	19890531
	AU 620417	B2	19920220		
	EP 417188	A1	19910320	EP 1989-906910	19890531
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 03502098	T2	19910516	JP 1989-506589	19890531

L25 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN

TI Cross-linking of enzymes to nylon using bis-O-tosylates of diols, glycols, and sugars

SO Annals of the New York Academy of Sciences (1988), 542(Enzyme Eng. 9), 165-8

CODEN: ANYAA9; ISSN: 0077-8923

AU Sundaram, P. V.

AN 1989:453247 HCAPLUS

DN 111:53247

L25 ANSWER 30 OF 32 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

TI Immobilized lipases in organic solvents;  
application to triglyceride interesterification (conference paper)

SO World Conf. Biotechnol. Fats + Oils Ind.; (1988) 123-30

AU Tanaka A; Kawamoto T; Kawase M; Nanko T; Sonomoto K

AN 1990-02358 BIOTECHDS

L25 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN

TI Effect of polyethylene glycol on the photochemical immobilization of an enzyme in photocrosslinkable poly(vinyl alcohol)

SO Makromolekulare Chemie (1987), 188(4), 763-8

CODEN: MACEAK; ISSN: 0025-116X

AU Ichimura, Kunihiro

AN 1987:191795 HCAPLUS

DN 106:191795

L25 ANSWER 32 OF 32 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

TI Fixing **enzyme** by gel-inclusion process - using **crosslinking** agent e.g. **polyethylene glycol** diacrylate.

PI JP 60168386 A 19850831 (198541)\* 4

JP 03069511 B 19911101 (199148)

=> d ab 14,23,28

L25 ANSWER 14 OF 32 MEDLINE on STN

DUPLICATE 1

AB The explosion in commercial and synthetic applications of enzymes has stimulated much of the interest in enhancing enzyme functionality and stability. Covalent chemical modification, the original method available for altering protein properties, has now re-emerged as a powerful complementary approach to site-directed mutagenesis and directed evolution for tailoring proteins and enzymes. Glutaraldehyde **crosslinking** of **enzyme** crystals and **polyethylene glycol** (PEG) modification of **enzyme** surface amino groups are practical methods to enhance biocatalyst stability. Whereas crosslinking of enzyme crystals generates easily recoverable insoluble biocatalysts, PEGylation increases solubility in organic solvents. Chemical modification has been exploited for the incorporation of cofactors onto protein templates and

for atom replacement in order to generate new functionality, such as the conversion of a hydrolase into a peroxidase. Despite the breadth of applicability of chemically modified enzymes, a difficulty that has previously impeded their implementation is the lack of chemo- or regio-specificity of chemical modifications, which can yield heterogeneous and irreproducible product mixtures. This challenge has recently been addressed by the introduction of a unique position for modification by a site-directed mutation that can subsequently be chemically modified to introduce an unnatural amino acid sidechain in a highly chemo- and regio-specific manner.

L25 ANSWER 23 OF 32 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
AB US 5324844 A UPAB: 19981104

A polyalkylene oxide having a mol. weight of less than 20,000, where at least one end gp. is an oxycarbonyl-oxy-N-dicarboximide gp. is new.

Pref. the polyalkylene oxide is of formula  $R1-(O-R2)_a-(O-R3)_q-(O-R4)_c-O-CO-O-R5$  in which,  $R1 = H, CH_3$ , or a carbonyloxy N-dicarboxyimide gp.  $R2-R4 = \text{alkyl}$ ;  $R5 = \text{N-dicarboximide gp.}$ ;  $a = 1-1,000$  and  $b = 0-1,000$ .

USE - To effect covalent attachment of PEG to a protein, the OH end gps. are converted to reactive functional gps.. The most common form of activated PEG is poly(ethyleneglycol) succinoyl-N-hydroxy-succinimide (SS-PEG). This and the present cpds. each to chemically modify polypeptides to reduce immunogenicity and antigenicity and increase lifetime in the bloodstream as compared to the parent polypeptides. These beneficial properties of the modified polypeptides make them very useful in a variety of therapeutic applications, such as enzyme therapy. The reactivity of SC-PEG and BSC-PEG is comparable to that of SS-PEG. Thus high degrees of modification are available in mild conditions (aqueous buffer, pH 5.8-11, pref. 7.0-9.5) within 30-60 mins. and at moderate temps. (4-40 deg.C.). Also the new agents are soluble in a variety of organic solvents, thus being useful in the coupling of low mol. weight partially protected peptides and other biologically useful ligands. An additional advantage of succinimide carbonate activated PEG is that those activated functional gps. that do not react with amino gps. of a protein undergo fast aqueous hydrolysis producing non-toxic N-hydroxysuccinimide,  $CO_2$  and hydroxy-terminated PEG. This is of particular importance in the case of BSC-PEG which can serve a dual purpose, vis **PEG-ylation** and **crosslinking**. Biological activities of **proteins** modified with the new cpds. are preserved to a large extent.  
Dwg.0/3

L25 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2005 ACS on STN

AB A biol. active substance (e.g. a cytotoxin, other drug, protein, enzyme, or nucleic acid) is delivered to cells (e.g. by receptor-mediated endocytosis) as a conjugate (e.g. an immunotoxin or prodrug) which can be cleaved within the cells under acidic conditions (e.g. at pH 5.4 in vesicles). The bifunctional crosslinking agent used in preparation of the conjugate is a ketal I [ $A = \text{bridge unit, preferably } (CH_2)_n; n = 1-8; R = C1-9 \text{ alkyl (preferably Me), (substituted) Ph}$ ], an acetal II [ $A$  as defined above;  $B = A, C_6H_4(CH_2)_n$ ], or an ortho ester III ( $A$  as above). These crosslinking agents can also be used to couple proteins reversibly to matrixes for synthetic and chromatog. purposes. Thus, I ( $A = CH_2CH_2$ ) (IV) was prepared by ketal exchange between N-(2-hydroxyethyl)maleimide and 2,2-dimethoxypropane. A nicked diphtheria toxin monomer was thiolated with iminothiolane and crosslinked to human T-cell surface antigen CD5 with IV. The toxicity of this conjugate toward target Jurkat cells was 50-fold greater than that of a similar conjugate prepared with a noncleavable crosslinker, bis(maleimido)hexane).

=> s 112(5a)linker?(5a)(protein# or enzyme#)  
FILE 'MEDLINE'  
10174 LINKER?  
1759365 PROTEIN#

730058 ENZYME#  
 L26 1 L1 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'SCISEARCH'  
 12657 LINKER?  
 1400079 PROTEIN#  
 459972 ENZYME#  
 L27 6 L2 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'LIFESCI'  
 4489 LINKER?  
 522211 PROTEIN#  
 197816 ENZYME#  
 L28 0 L3 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'BIOTECHDS'  
 4471 LINKER?  
 136948 PROTEIN#  
 122684 ENZYME#  
 L29 2 L4 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'BIOSIS'  
 10838 LINKER?  
 1669165 PROTEIN#  
 772072 ENZYME#  
 L30 2 L5 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'EMBASE'  
 9200 LINKER?  
 1410253 PROTEIN#  
 787204 ENZYME#  
 L31 0 L6 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'HCAPLUS'  
 19537 LINKER?  
 2014283 PROTEIN#  
 929021 ENZYME#  
 L32 10 L7 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'NTIS'  
 176 LINKER?  
 18093 PROTEIN#  
 12052 ENZYME#  
 L33 0 L8 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'ESBIOBASE'  
 6032 LINKER?  
 655527 PROTEIN#  
 226276 ENZYME#  
 L34 2 L9 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'BIOTECHNO'  
 5399 LINKER?  
 653195 PROTEIN#  
 353854 ENZYME#  
 L35 0 L10 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 FILE 'WPIDS'  
 7635 LINKER?  
 142087 PROTEIN#  
 78914 ENZYME#  
 L36 4 L11 (5A)LINKER? (5A) (PROTEIN# OR ENZYME#)  
 TOTAL FOR ALL FILES

L37 27 L12(5A) LINKER?(5A) (PROTEIN# OR ENZYME#)

=> dup rem l37

PROCESSING COMPLETED FOR L37

L38 22 DUP REM L37 (5 DUPLICATES REMOVED)

=> d tot

L38 ANSWER 1 OF 22 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Construction of PEGylated gold colloid-assembled surface for high performance biosensor

SO KOBUNSHI RONBUNSHU, (FEB 2005) Vol. 62, No. 2, pp. 81-86.

Publisher: SOC POLYMER SCIENCE JAPAN, TSUKIJI DAISAN NAGAOKA BLDG, 2-4-2 TSUKIJI, CHUO-KU, TOKYO, 104, JAPAN.  
ISSN: 0386-2186.

AU Ishii T (Reprint); Suzuki Y; Akiyama Y; Otsuka H; Kataoka K; Nagasaki Y  
AN 2005:279872 SCISEARCH

L38 ANSWER 2 OF 22 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

TI Use of a Ble fusion protein as an expression and folding marker, as an affinity tag or as an expression and folding marker and an affinity tag, particularly, as markers for protein expression and/or folding;  
recombinant bleomycin fusion protein production and DNA microarray for use in protein expression analysis

AU HART D; GODBER B; BLACKBURN J M; MCANDREWS M

AN 2004-15542 BIOTECHDS

PI WO 2004046730 3 Jun 2004

L38 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN

TI PEG-physiologically active polypeptide homodimer complex having prolonged in vivo half-life and process for the preparation thereof

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

IN Kim, Young Min; Kim, Dae Jin; Bae, Sung Min; Lim, Chang Ki; Kim, Kyeong Bae; Kwon, Se Chang; Lee, Gwan Sun

AN 2004:857621 HCAPLUS

DN 141:337646

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

PI WO 2004087739 A1 20041014 WO 2004-KR781 20040403

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

L38 ANSWER 4 OF 22 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

TI Novel bispecific molecule comprising a first recognition binding moiety that binds C3b-like receptor, cross-linked through a polyethylene glycol linker to second recognition binding moieties that bind molecules other than C3b-like receptors.

PI WO 2004024889 A2 20040325 (200431)\* EN 95 C12N000-00

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH

PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC  
VN YU ZA ZM ZW

AU 2003270686 A1 20040430 (200462) C12N000-00

IN CASEY, L; LEE, L S; MOHAMED, N; PORTER, J P; SESAY, M; WANG, X

L38 ANSWER 5 OF 22 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

TI Producing activated ester of polyethylene glycol (PEG) useful for  
PEGylation of biologically active peptides and proteins, by activating PEG  
with N,N'-disuccinimidyl oxalate or 1,1'-bis(6-  
(trifluoromethyl)benzotriazolyl) oxalate.

PI US 2004162388 A1 20040819 (200460)\* 13 C07K014-47  
WO 2004074345 A2 20040902 (200460) EN C08G065-00

RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE  
LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE  
DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG  
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ  
OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG  
US UZ VC VN YU ZA ZM ZW

IN TJOENG, F S

L38 ANSWER 6 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN

TI Use of P97 as an enzyme delivery system for the delivery of therapeutic  
lysosomal enzymes

SO PCT Int. Appl., 48 pp.  
CODEN: PIXXD2

IN Starr, Christopher M.; Zankel, Todd

AN 2003:551350 HCAPLUS

DN 139:106432

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057179	A2	20030717	WO 2003-US894	20030110
WO 2003057179	A3	20031204		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1463512 A2 20041006 EP 2003-717870 20030110

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

L38 ANSWER 7 OF 22 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
STN

TI Surface modification of a novel porous titanium dioxide/glass composite

SO MATERIALWISSENSCHAFT UND WERKSTOFFTECHNIK, (DEC 2003) Vol. 34, No. 12, pp.  
1058-1063.  
Publisher: WILEY-V C H VERLAG GMBH, PO BOX 10 11 61, D-69451 WEINHEIM,  
GERMANY.  
ISSN: 0933-5137.

AU Erli H J (Reprint); von Walter M; Ragoss C; Steffens G C M; Paar O; Maier  
H R

AN 2004:127666 SCISEARCH

L38 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN

TI PEG pro-linkers: Applications to biologically active molecules and  
proteins

SO Polymeric Materials Science and Engineering (2003), 89, 627  
CODEN: PMSDGG; ISSN: 1550-6703

AU Greenwald, Richard B.; Grau, Uli; Choe, Yun H.; Zhao, Hong  
AN 2003:666858 HCAPLUS  
DN 140:169494

L38 ANSWER 9 OF 22 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Val-ala-pro-gly, an elastin-derived non-integrin ligand: Smooth muscle cell adhesion and specificity

SO JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A, (1 OCT 2003) Vol. 67A, No. 1, pp. 255-259.  
Publisher: WILEY-LISS, DIV JOHN WILEY & SONS INC, 605 THIRD AVE, NEW YORK, NY 10158-0012 USA.  
ISSN: 0021-9304.

AU Gobin A S; West J L (Reprint)  
AN 2003:889096 SCISEARCH

L38 ANSWER 10 OF 22 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

TI New immunoglobulin (Ig)G monoclonal antibody, useful for detection of a target, and purification of a target e.g. peptides, proteins, enzymes, cytokines, hematopoietins, growth factors, and hormones;  
monoclonal antibody and humanized antibody production useful for protein purification, DNA purification, RNA purification and diagnosis

AU ROBERTS M J; GREEN M E  
AN 2003-09031 BIOTECHDS  
PI WO 2002094853 28 Nov 2002

L38 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN

TI Use of human receptor activator of NF- $\kappa$ B and osteoprotegerin variants with improved ligand binding activity for treatment of osteoporosis and bone disorders

SO PCT Int. Appl., 129 pp.  
CODEN: PIXXD2

IN Haaning, Jesper Mortensen; Halkier, Torben  
AN 2002:637829 HCAPLUS  
DN 137:181397

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002064782	A2	20020822	WO 2002-DK90	20020208
	WO 2002064782	A3	20040108		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	EP 1399555	A2	20040324	EP 2002-711778	20020208
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
	US 2004132971	A1	20040708	US 2004-467243	20040112

L38 ANSWER 12 OF 22 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

TI Evaluating solid phase for use in dual bead assay, involves binding solid phase to probe optionally in presence of cross-linking agent and determining amount of probe bound covalently to solid phase.

PI WO 2002068696 A2 20020906 (200315)\* EN 137 C12Q001-68  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT

RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW  
US 2002168663 A1 20021114 (200315) C12Q001-68  
US 2003077598 A1 20030424 (200330) C12Q001-68  
AU 2002238142 A1 20020912 (200433) C12Q001-68  
IN LAM, A H; PHAN, B C; VIRTANEN, J A; YEUNG, K

L38 ANSWER 13 OF 22 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Macromolecular solid particles for transporting hydrophobic active agents  
e.g. drugs or nucleic acids, comprise molecular backbone, polycondensate  
side chains and side chain terminals having free reactive groups.  
PI WO 2002000191 A2 20020103 (200230)\* GE 134 A61K009-00  
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ  
NL OA PT SD SE SL SZ TR TZ UG ZW  
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU  
SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
AU 2001081921 A 20020108 (200235) A61K009-00  
EP 1333806 A2 20030813 (200355) GE A61K009-00  
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
RO SE SI TR  
US 2004062815 A1 20040401 (200424) A61K009-16  
IN FLAIG, R M; FRICKER, G

L38 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN  
TI Substrate Specificity of the Integral Membrane Protease OmpT Determined by  
Spatially Addressed Peptide Libraries  
SO Biochemistry (2001), 40(6), 1694-1701  
CODEN: BICHAW; ISSN: 0006-2960  
AU Dekker, Niek; Cox, Ruud C.; Kramer, R. Arjen; Egmond, Maarten R.  
AN 2001:36316 HCAPLUS  
DN 134:233492

L38 ANSWER 15 OF 22 MEDLINE on STN DUPLICATE 1  
TI Drug delivery systems employing 1,6-elimination: releasable poly(ethylene  
glycol) conjugates of proteins.  
SO Bioconjugate chemistry, (2001 Mar-Apr) 12 (2) 163-9.  
Journal code: 9010319. ISSN: 1043-1802.  
AU Lee S; Greenwald R B; McGuire J; Yang K; Shi C  
AN 2001459730 MEDLINE

L38 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN  
TI Laundry detergent and/or fabric care compositions comprising an enzyme  
modified with a cellulose-binding domain  
SO PCT Int. Appl., 96 pp.  
CODEN: PIXXD2  
IN Smets, Johan; Bettiol, Jean-Luc Philippe; Boyer, Stanton Lane; Busch,  
Alfred  
AN 1999:723153 HCAPLUS  
DN 131:324165

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9957250	A1	19991111	WO 1998-US8856	19980501
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9872754	A1	19991123	AU 1998-72754	19980501
CA 2330614	AA	19991111	CA 1999-2330614	19990430
WO 9957252	A1	19991111	WO 1999-US9453	19990430



W: BR, CA, CN, IN, JP, MX, US  
 RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE

BR 9910151	A	20010109	BR 1999-10151	19990430
BR 9910158	A	20010109	BR 1999-10158	19990430
EP 1073724	A1	20010207	EP 1999-920204	19990430
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2003522517	T2	20030729	JP 2000-547208	19990430
US 6465410	B1	20021015	US 2000-674471	20001101
US 6468955	B1	20021022	US 2000-674478	20001101

L38 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Activated PEG linkers and methods for making and purifying them  
 SO PCT Int. Appl., 56 pp.  
 CODEN: PIXXD2

IN Ibrahim, Prabha N.; Baile, Robert A.; Seely, James Ervin  
 AN 1997:617995 HCAPLUS  
 DN 127:268033

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
PI WO 9732607	A2	19970912	WO 1996-US19459	19961206
WO 9732607	A3	19971113		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5747639	A	19980505	US 1996-611918	19960306
CA 2248006	AA	19970912	CA 1996-2248006	19961206
CA 2248006	C	20020528		
AU 9714108	A1	19970922	AU 1997-14108	19961206
AU 720399	B2	20000601		
EP 906122	A2	19990407	EP 1996-944251	19961206
EP 906122	B1	20030910		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000506851	T2	20000606	JP 1997-531747	19961206
AT 249244	E	20030915	AT 1996-944251	19961206
PT 906122	T	20031231	PT 1996-944251	19961206
ES 2206616	T3	20040516	ES 1996-944251	19961206
US 5935564	A	19990810	US 1997-936478	19970918

L38 ANSWER 18 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Issues encountered in the production of site-specific mono-PEGylated  
 therapeutic proteins  
 SO Polymer Preprints (American Chemical Society, Division of Polymer  
 Chemistry) (1997), 38(1), 572-573  
 CODEN: ACPPAY; ISSN: 0032-3934  
 AU Seely, Jim; Richey, Carl; Grasel, Tim; Wilson, John  
 AN 1997:224409 HCAPLUS  
 DN 126:268347

L38 ANSWER 19 OF 22 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI PEG thiazolidine-2-thione, a novel reagent for facile protein  
 modification: Conjugation of bovine hemoglobin  
 SO BIOCONJUGATE CHEMISTRY, (NOV-DEC 1996) Vol. 7, No. 6, pp. 638-641.  
 Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036.  
 ISSN: 1043-1802.  
 AU Greenwald R B (Reprint); Pendri A; Martinez A; Gilbert C; Bradley P  
 AN 96:896460 SCISEARCH

L38 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Poly(ethylene glycol) Fluorescent Linkers  
 SO Bioconjugate Chemistry (1995), 6(5), 596-8  
 CODEN: BCCHE5; ISSN: 1043-1802  
 AU Pendri, Annapurna; Martinez, Anthony; Xia, Jing; Shorr, Robert G. L.;  
 Greenwald, Richard B.  
 AN 1995:790826 HCAPLUS  
 DN 123:229223

L38 ANSWER 21 OF 22 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI MANUFACTURING OF RECOMBINANT TUMOR-NECROSIS-FACTOR BINDING-**PROTEIN**  
 DUMBBELL USING A 20K **PEG** BIS-VINYLSULFONE **LINKER**  
 SO ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, (02 APR 1995) Vol.  
 209, Part 1, pp. 68-BIOT.  
 ISSN: 0065-7727.  
 AU SEELY J (Reprint); RICHEY C; TODD B  
 AN 95:623781 SCISEARCH

L38 ANSWER 22 OF 22 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI Manufacturing of recombinant tumor necrosis factor binding **protein**  
 "dumbbell" using a 20K **PEG** bis-vinylsulfone **linker**.  
 SO Abstracts of Papers American Chemical Society, (1995) Vol. 209, No. 1-2,  
 pp. BIOT 68.  
 Meeting Info.: 209th American Chemical Society National Meeting. Anaheim,  
 California, USA. April 2-6, 1995.  
 CODEN: ACSRAL. ISSN: 0065-7727.  
 AU Seely J., C. Richey; Todd, B.  
 AN 1995:239228 BIOSIS

=> d ab 17,19,20

L38 ANSWER 17 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AB Activated PEG linkers, particularly those having reactive Michael  
 acceptors, are prepared which can be used to modify biol. active mols. and  
 improve overall production of such mols. An efficient process is provided for  
 purifying the activated linkers by hydrophobic interaction chromatog.  
 (HIC) to sep. the activated linkers based on their size and on their  
 end-group functionality. Thus, PEG (20 kDa) reacted with divinyl sulfone  
 to form PEG bis(vinyl sulfone) (I). I bound completely to ToyoPearl Bu  
 650C resin in the presence of 1.75M NaCl or 0.25M Na2SO4; elution with a  
 linear NaCl gradient separated 20-kDa I from high-mol.-weight I. The 20-kDa I  
 was conjugated with a reduced tumor necrosis factor-binding protein  
 mutein, and products bearing tumor necrosis factor at one or both ends of  
 PEG were separated by HIC on ToyoPearl Bu 650C.

L38 ANSWER 19 OF 22 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 DUPLICATE 2  
 AB A novel PEG linker that employs a thiazolidine-2-thione group has been  
 synthesized. Kinetic studies done on this compound demonstrate a  
 relatively long half-life compared to those of traditional succinimidyl  
**linkers**. This new **PEG** derivative reacts with  
**proteins** under mild conditions and was utilized to conjugate  
 bovine hemoglobin (bHb) to provide a PEG amide-linked protein. The  
 physical characteristics of this conjugate were compared with those of the  
 known PEG carbamate-linked bHb.

L38 ANSWER 20 OF 22 HCAPLUS COPYRIGHT 2005 ACS on STN  
 AB The first examples of PEG linkers containing the highly fluorescent dansyl  
 group were synthesized. Quantum yields of these PEG fluorescent linker  
 were determined and utilized in calculating the PEG number of various protein

conjugates. The method was also shown to be applicable to lower mol. weight drugs as exemplified by taxol.

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

150.82

151.03

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-2.19

-2.19

STN INTERNATIONAL LOGOFF AT 08:27:24 ON 20 APR 2005

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 08:39:16 ON 20 APR 2005

=> fil .bec

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIODBASE, BIOTECHNO, WPIDS' ENTERED AT 08:39:26 ON 20 APR 2005  
ALL COPYRIGHTS AND RESTRICTIONS APPLY. SEE HELP USAGETERMS FOR DETAILS.

11 FILES IN THE FILE LIST

=> s protein#(5a)conjugat?

FILE 'MEDLINE'

1759365 PROTEIN#

75574 CONJUGAT?

L1 5319 PROTEIN#(5A) CONJUGAT?

FILE 'SCISEARCH'

1400079 PROTEIN#

106571 CONJUGAT?

L2 4883 PROTEIN#(5A) CONJUGAT?

FILE 'LIFESCI'

522211 PROTEIN#

22489 CONJUGAT?

L3 2177 PROTEIN#(5A) CONJUGAT?

FILE 'BIOTECHDS'

136948 PROTEIN#

8285 CONJUGAT?

L4 973 PROTEIN#(5A) CONJUGAT?

FILE 'BIOSIS'

1669165 PROTEIN#

84018 CONJUGAT?

L5 6274 PROTEIN#(5A) CONJUGAT?

FILE 'EMBASE'

1410253 PROTEIN#

72830 CONJUGAT?

L6 4612 PROTEIN#(5A) CONJUGAT?

FILE 'HCAPLUS'

2014283 PROTEIN#

207032 CONJUGAT?

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L7      13409 PROTEIN# (5A) CONJUGAT?

FILE 'NTIS'
      18093 PROTEIN#
      4589 CONJUGAT?
L8      208 PROTEIN# (5A) CONJUGAT?

FILE 'ESBIOBASE'
      655527 PROTEIN#
      25047 CONJUGAT?
L9      2466 PROTEIN# (5A) CONJUGAT?

FILE 'BIOTECHNO'
      653195 PROTEIN#
      24320 CONJUGAT?
L10     2466 PROTEIN# (5A) CONJUGAT?

FILE 'WPIDS'
      142087 PROTEIN#
      44496 CONJUGAT?
L11     1956 PROTEIN# (5A) CONJUGAT?

TOTAL FOR ALL FILES
L12     44743 PROTEIN# (5A) CONJUGAT?

=> s (peg or polyethylene glycol) (10a)link?
FILE 'MEDLINE'
      8959 PEG
      33678 POLYETHYLENE
      22000 GLYCOL
      9086 POLYETHYLENE GLYCOL
            (POLYETHYLENE (W) GLYCOL)
      382837 LINK?
L13     309 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?

FILE 'SCISEARCH'
      14973 PEG
      49789 POLYETHYLENE
      36174 GLYCOL
      11455 POLYETHYLENE GLYCOL
            (POLYETHYLENE (W) GLYCOL)
      411725 LINK?
L14     519 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?

FILE 'LIFESCI'
      2228 PEG
      4480 "POLYETHYLENE"
      5906 "GLYCOL"
      3000 POLYETHYLENE GLYCOL
            ("POLYETHYLENE" (W) "GLYCOL")
      128013 LINK?
L15     85 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?

FILE 'BIOTECHDS'
      6044 PEG
      3945 POLYETHYLENE
      4515 GLYCOL
      3036 POLYETHYLENE GLYCOL
            (POLYETHYLENE (W) GLYCOL)
      30772 LINK?
L16     127 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?

FILE 'BIOSIS'
      11854 PEG

```

23925 POLYETHYLENE  
 32559 GLYCOL  
 14532 POLYETHYLENE GLYCOL  
       (POLYETHYLENE (W) GLYCOL)  
 340098 LINK?  
 L17       327 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?  
  
 FILE 'EMBASE'  
       8915 PEG  
       18670 "POLYETHYLENE"  
       28246 "GLYCOL"  
       8533 POLYETHYLENE GLYCOL  
           ("POLYETHYLENE" (W) "GLYCOL")  
       339891 LINK?  
 L18       325 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?  
  
 FILE 'HCAPLUS'  
       31703 PEG  
       323028 POLYETHYLENE  
       328789 GLYCOL  
       90639 POLYETHYLENE GLYCOL  
           (POLYETHYLENE (W) GLYCOL)  
       418245 LINK?  
 L19       1011 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?  
  
 FILE 'NTIS'  
       321 PEG  
       5591 POLYETHYLENE  
       1894 GLYCOL  
       253 POLYETHYLENE GLYCOL  
           (POLYETHYLENE (W) GLYCOL)  
       32483 LINK?  
 L20       12 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?  
  
 FILE 'ESBIOBASE'  
       3672 PEG  
       4796 POLYETHYLENE  
       6391 GLYCOL  
       3005 POLYETHYLENE GLYCOL  
           (POLYETHYLENE (W) GLYCOL)  
       144684 LINK?  
 L21       174 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?  
  
 FILE 'BIOTECHNO'  
       2816 PEG  
       4665 POLYETHYLENE  
       7260 GLYCOL  
       3167 POLYETHYLENE GLYCOL  
           (POLYETHYLENE (W) GLYCOL)  
       173624 LINK?  
 L22       170 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?  
  
 FILE 'WPIDS'  
       15802 PEG  
       197943 POLYETHYLENE  
       109036 GLYCOL  
       26705 POLYETHYLENE GLYCOL  
           (POLYETHYLENE (W) GLYCOL)  
       444068 LINK?  
 L23       772 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?  
  
 TOTAL FOR ALL FILES  
 L24       3831 (PEG OR POLYETHYLENE GLYCOL) (10A) LINK?

=> s 112 and 124  
FILE 'MEDLINE'  
L25 12 L1 AND L13  
  
FILE 'SCISEARCH'  
L26 16 L2 AND L14  
  
FILE 'LIFESCI'  
L27 2 L3 AND L15  
  
FILE 'BIOTECHDS'  
L28 6 L4 AND L16  
  
FILE 'BIOSIS'  
L29 13 L5 AND L17  
  
FILE 'EMBASE'  
L30 9 L6 AND L18  
  
FILE 'HCAPLUS'  
L31 63 L7 AND L19  
  
FILE 'NTIS'  
L32 0 L8 AND L20  
  
FILE 'ESBIOBASE'  
L33 8 L9 AND L21  
  
FILE 'BIOTECHNO'  
L34 0 L10 AND L22  
  
FILE 'WPIDS'  
L35 19 L11 AND L23  
  
TOTAL FOR ALL FILES  
L36 148 L12 AND L24

=> s 136 not 1999-2005/py  
FILE 'MEDLINE'  
3325502 1999-2005/PY  
L37 4 L25 NOT 1999-2005/PY  
  
FILE 'SCISEARCH'  
6385167 1999-2005/PY  
L38 8 L26 NOT 1999-2005/PY  
  
FILE 'LIFESCI'  
647543 1999-2005/PY  
L39 1 L27 NOT 1999-2005/PY  
  
FILE 'BIOTECHDS'  
126993 1999-2005/PY  
L40 0 L28 NOT 1999-2005/PY  
  
FILE 'BIOSIS'  
3277108 1999-2005/PY  
L41 4 L29 NOT 1999-2005/PY  
  
FILE 'EMBASE'  
2914482 1999-2005/PY  
L42 3 L30 NOT 1999-2005/PY  
  
FILE 'HCAPLUS'  
6178020 1999-2005/PY

L43 15 L31 NOT 1999-2005/PY

FILE 'NTIS'

108997 1999-2005/PY

L44 0 L32 NOT 1999-2005/PY

FILE 'ESBIOBASE'

1817014 1999-2005/PY

L45 3 L33 NOT 1999-2005/PY

FILE 'BIOTECHNO'

611346 1999-2005/PY

L46 0 L34 NOT 1999-2005/PY

FILE 'WPIDS'

5325720 1999-2005/PY

L47 3 L35 NOT 1999-2005/PY

TOTAL FOR ALL FILES

L48 41 L36 NOT 1999-2005/PY

=> dup rem l48

PROCESSING COMPLETED FOR L48

L49 20 DUP REM L48 (21 DUPLICATES REMOVED)

=> d tot

L49 ANSWER 1 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

TI Detecting/treating target cells, tissues or pathogens - by a pre-targetting method which uses improved chelate conjugates, which can improve the amount of radionuclide delivered to the target.

PI WO 9804293 A1 19980205 (199813)\* EN 38 A61K051-00

RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW

AU 9740474 A 19980220 (199828) A61K051-00

IN GRIFFITHS, G L; HANSEN, H J; KARACAY, H

L49 ANSWER 2 OF 20 MEDLINE on STN DUPLICATE 1

TI Short communication: renal tubular vacuolation in animals treated with polyethylene-glycol-**conjugated proteins**.

SO Toxicological sciences : an official journal of the Society of Toxicology, (1998 Apr) 42 (2) 152-7.

Journal code: 9805461. ISSN: 1096-6080.

AU Bendele A; Seely J; Richey C; Sennello G; Shopp G

AN 1998240182 MEDLINE

L49 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

TI Issues encountered in the production of site-specific mono-PEGylated therapeutic proteins

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1997), 38(1), 572-573

CODEN: ACPPAY; ISSN: 0032-3934

AU Seely, Jim; Richey, Carl; Grasel, Tim; Wilson, John

AN 1997:224409 HCAPLUS

DN 126:268347

L49 ANSWER 4 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 2

TI Hydrazide derivatives of poly(ethylene glycol) and their bioconjugates

SO ACS SYMPOSIUM SERIES, (FEB 1997) Vol. 680, pp. 318-341.

Publisher: AMER CHEMICAL SOC, 1155 SIXTEENTH ST NW, WASHINGTON, DC 20036.  
ISSN: 0097-6156.

AU Zalipsky S (Reprint); MenonRudolph S  
AN 1998:12679 SCISEARCH

L49 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
TI Novel degradable PEG esters for drug delivery: Synthesis and  
characterization.  
SO Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17  
(1997), POLY-024 Publisher: American Chemical Society, Washington, D. C.  
CODEN: 64AOAA  
AU Zhao, Xuan; Harris, J. Milton  
AN 1997:163952 HCAPLUS

L49 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3  
TI Pegylated modified proteins  
SO PCT Int. Appl., 71 pp.  
CODEN: PIXXD2  
IN Bona, Constantin; Brumeanu, Teodor-Doru  
AN 1997:97355 HCAPLUS  
DN 126:103109

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9640731	A1	19961219	WO 1996-US8995	19960606
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9662550	A1	19961230	AU 1996-62550	19960606

L49 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN.  
TI Low diol polyalkylene oxide for modifying proteins to increase their  
half-life and reduce immunogenicity  
SO U.S., 36 pp., Cont.-in-part of U.S. Ser. No. 936,416, abandoned.  
CODEN: USXXAM  
IN Snow, Robert A.; Ladd, David L.; Hoyer, Denton W.  
AN 1996:452743 HCAPLUS  
DN 125:136431

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5532150	A	19960702	US 1994-245999	19940519
CA 2101361	AA	19940228	CA 1993-2101361	19930727
JP 06172201	A2	19940621	JP 1993-210302	19930825
AU 9344885	A1	19940303	AU 1993-44885	19930826
AU 675798	B2	19970220		
HU 66755	A2	19941228	HU 1993-2440	19930827
US 5661020	A	19970826	US 1996-632300	19960415

L49 ANSWER 8 OF 20 MEDLINE on STN DUPLICATE 4  
TI PEG thiazolidine-2-thione, a novel reagent for facile **protein**  
modification: **conjugation** of bovine hemoglobin.  
SO Bioconjugate chemistry, (1996 Nov-Dec) 7 (6) 638-41.  
Journal code: 9010319. ISSN: 1043-1802.  
AU Greenwald R B; Pendri A; Martinez A; Gilbert C; Bradley P  
AN 97107756 MEDLINE

L49 ANSWER 9 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI PROLONGED CIRCULATION OF RECOMBINANT HUMAN GRANULOCYTE-COLONY-STIMULATING  
FACTOR BY COVALENT **LINKAGE** TO ALBUMIN THROUGH A  
HETEROBIFUNCTIONAL **POLYETHYLENE-GLYCOL**  
SO PHARMACEUTICAL RESEARCH, (DEC 1995) Vol. 12, No. 12, pp. 1883-1888.  
ISSN: 0724-8741.  
AU PAIGE A G (Reprint); WHITCOMB K L; LIU J; KINSTLER O  
AN 96:69623 SCISEARCH



L49 ANSWER 10 OF 20 MEDLINE on STN DUPLICATE 5  
 TI Poly(ethylene glycol) fluorescent linkers.  
 SO Bioconjugate chemistry, (1995 Sep-Oct) 6 (5) 596-8.  
 Journal code: 9010319. ISSN: 1043-1802.  
 AU Pendri A; Martinez A; Xia J; Shorr R G; Greenwald R B  
 AN 96113592 MEDLINE

L49 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI PEG-protein constructs for clinical use  
 SO Perspectives on Protein Engineering & Complementary Technologies,  
 Collected Papers, International Symposium, 3rd, Oxford, Sept. 13-17, 1994  
 (1995), Meeting Date 1994, 223-226. Editor(s): Geisow, Michael J.; Epton,  
 Roger. Publisher: Mayflower Worldwide, Kingswinford, UK.  
 CODEN: 62ZQAP  
 AU Fisher, D.; Delgado, C.; Tejedor, M. C.; Malik, F.; Francis, G. E.  
 AN 1996:398583 HCAPLUS  
 DN 125:95896

L49 ANSWER 12 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
 STN  
 TI POLY(ETHYLENE GLYCOL)-MODIFIED PHOSPHOLIPIDS PREVENT AGGREGATION DURING  
 COVALENT **CONJUGATION** OF **PROTEINS** TO LIPOSOMES  
 SO BIOCONJUGATE CHEMISTRY, (MAR/APR 1995) Vol. 6, No. 2, pp. 187-194.  
 ISSN: 1043-1802.  
 AU HARASYM T O (Reprint); TARDI P; LONGMAN S A; ANSELL S M; BALLY M B; CULLIS  
 P R; CHOI L S L  
 AN 95:246092 SCISEARCH

L49 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI **PEG** hydrazone and **PEG** oxime **linkage** forming  
 reagents and protein derivatives.  
 SO Eur. Pat. Appl., 47 pp.  
 CODEN: EPXXDW  
 IN Wright, David E.  
 AN 1995:319762 HCAPLUS  
 DN 122:89553

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 605963	A2	19940713	EP 1993-309825	19931207
	EP 605963	A3	19951108		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	CA 2110543	AA	19940610	CA 1993-2110543	19931202
	FI 9305485	A	19940610	FI 1993-5485	19931208
	NO 9304477	A	19940610	NO 1993-4477	19931208
	ZA 9309214	A	19950608	ZA 1993-9214	19931208
	AU 9352383	A1	19940623	AU 1993-52383	19931209
	JP 07196925	A2	19950801	JP 1993-340709	19931209

L49 ANSWER 14 OF 20 MEDLINE on STN DUPLICATE 6  
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 AN 95213525 MEDLINE

L49 ANSWER 15 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
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 PI US 5252714 A 19931012 (199342)\* 5 C07K003-08  
 IN HARRIS, J M; SEDAGHAT-HERATI, M R

L49 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

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L49 ANSWER 17 OF 20 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.  
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L49 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9216555	A1	19921001	WO 1992-US2047	19920312
W: AU, CA, HU, JP, KR, RU				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
AU 9216769	A1	19921021	AU 1992-16769	19920312
EP 576589	A1	19940105	EP 1992-909326	19920312
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06506217	T2	19940714	JP 1992-508914	19920312
CA 2101918	AA	19920919	CA 1992-2101918	19920316

L49 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Conjugates for targeted delivery of bone growth factors  
 SO Eur. Pat. Appl., 9 pp.  
 CODEN: EPXXDW  
 IN Bentz, Hanne; Rosen, David  
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 512844	A1	19921111	EP 1992-304142	19920508
EP 512844	B1	19970806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
CA 2102808	AA	19921111	CA 1992-2102808	19920507
WO 9220371	A1	19921126	WO 1992-US3840	19920507
W: AU, CA, JP				
AU 9219947	A1	19921230	AU 1992-19947	19920507
AU 662155	B2	19950824		
AT 156365	E	19970815	AT 1992-304142	19920508
ES 2104827	T3	19971016	ES 1992-304142	19920508

L49 ANSWER 20 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN  
 DUPLICATE 7  
 TI SUCCINIMIDYL CARBONATES OF POLYETHYLENE-GLYCOL - USEFUL REACTIVE POLYMERS FOR PREPARATION OF **PROTEIN CONJUGATES**  
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 AN 91:505276 SCISEARCH

=> d ab tot

L49 ANSWER 1 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
AB WO 9804293 A UPAB: 19980330

The following are claimed: (A) a method for detecting or treating target cells, tissues or pathogens ('the target material') in a patient, comprising: (a) pre-targeting the material with avidin, using a targeting protein that (i) specifically binds a marker substance on the target material, and to which (ii) avidin is bound either directly (as an avidin-targeting **protein conjugate**) or indirectly (via non-covalent bonding of avidin to a biotin-targeting **protein conjugate**); (b) parenterally injecting a detection or therapeutic composition (comprising a biotin-chelator conjugate and a chelatable metal ion detection/therapeutic agent), and allowing the composition to accrete at the target material, and (c) using the detection/therapeutic agent to detect or treat the target material. The chelate conjugate is (i) purified by chromatography after chelation of the metal ion, or (ii) also comprises a blood transit-modifying linker or addend which is covalently bound to the chelate conjugate, and (B) a sterile injectable composition, for human use, comprising: (a) a biotin-chelator conjugate and a chelatable metal ion detection/therapeutic agent; or (b) a biotin-chelator conjugate (to which a blood transit-modifying linker or addend is covalently bound) and a chelatable metal ion detection/therapeutic agent.

The chromatography is anion exchange chromatography. The blood transit-modifying **linker** or addend is dextran, polypeptide or **polyethylene glycol**. It has a fractional clearance by the kidney of < 1. It has an effective molecular radius of 15-40 Angstrom. The metal ion detection or therapeutic agent is an electron- or a neutron-capturing agent. The metal of the agent is antimony-119, actinium-225, rhenium-186, -188 or 189, silver-111, platinum-197, palladium-103 or 109, copper-67, etc. The chelating agent is DOTA (1,4,7,10-tetraazacyclododecane N,N',N'',N'''-tetraacetic acid). The multiple chelate conjugate is a metallothionein or comprises a synthetic polymer.

USE - The process may be used for detection and/or treatment of pathological conditions, such as tumours.

ADVANTAGE - Compared to prior art processes, the above processes allow delivery of higher amounts, higher specific activities and higher target:nontarget ratios of detection/therapeutic agents to target sites. They allow greater control of the residence time of administered detection and therapeutic agents in the body.

Dwg.0/0

L49 ANSWER 2 OF 20 MEDLINE on STN DUPLICATE 1

AB During toxicologic evaluation of a dimeric **PEG-linked** protein, tumor necrosis factor binding protein (TNF-bp), vacuolation of renal cortical tubular epithelium was seen in male and female Sprague-Dawley rats (200-300 g) given i.v. doses of 40, 20, or 10 mg/kg every other day for 3 months. Tubular lesions in rats treated with 20 or 40 mg/kg for 3 months were only partially reversible after a 2-month recovery period. Despite the presence of marked vacuolation, there were no changes in BUN, creatinine, urinalysis parameters, urinary NAG, urinary B2-microglobulin, or fractional sodium excretion. Single i.v. doses > or = 20 mg/kg TNF-bp caused similar but milder changes. However, equivalent doses of **PEG** alone or the non-**PEG-linked** TNF-bp did not cause light microscopic evidence of vacuolation. Treatment of rats with another **PEG-linked** protein of similar molecular weight resulted in similar changes. Immunostaining for TNF-bp revealed positivity in the apical cytoplasm of renal tubular epithelium within 1 h of i.v. dosing. Immunostaining of kidneys from chronically dosed rats indicated that protein was present in some vacuoles as long as dosing continued; however, kidneys from animals on a reversibility study

had vacuoles but no immunostaining for TNF-bp. These results, along with a study that showed more severe lesions with **PEG-linked** proteins of lower molecular weight and minimal if any lesions with **PEG-linked** proteins > 70 kDa, suggest that TNF-bp is filtered through the glomerulus and that the protein with attached PEG is reabsorbed by the proximal tubules. Vacuolation may be a result of fluid distension of lysosomes due to the hygroscopic nature of PEG. These studies demonstrated that **PEG-linked** proteins have the capacity to induce renal tubular vacuolation at high doses. However, the change was not associated with alteration of clinical pathology or functional markers.

L49 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

AB A review with 8 refs. of the influence of pegylation conditions and **PEG linker** quality on attachment of **PEG** to protein cysteine residues, and of the influence of NaBH<sub>3</sub>CN quality and PEG aldehyde quality on PEG modification of protein amino groups.

L49 ANSWER 4 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 2

AB Hydrazide derivatives of poly(ethylene glycol) (PEG-Hz) have a number of attributes making them useful for preparation of conjugates, particularly of polypeptides and glycoproteins. They form conjugates in mildly acidic aqueous solutions via two modes of reactivity. The first one involves hydrazone formation with reactive carbonyls generated on the substrate molecule by several different methods. These include oxidation of oligosaccharide residues of glycoproteins, glyoxylate / Cu<sup>2+</sup> -mediated transamination of the N-terminal residue of polypeptides, periodate oxidation of N-terminal Ser or Thr residues. The second mode involves coupling with carbodiimide-activated carboxyl groups forming diacylhydrazide **linkages** with **PEG**. Synthesis of **PEG-Hz** is straightforward by hydrazinolysis of esters of either carboxymethylated **PEG** or urethane-**linked** amino acid. Having an unusual amino acid, e.g. beta-Ala, as part of the linker offers a convenient way for composition determination of **protein conjugates**, particularly those containing multiple chains of mPEG-O(C=O)-beta-Ala-Hz, by amino acid analysis. Our work involving PEG-Hz conjugation, including examples of preparation of N-terminally modified polypeptides, oligosaccharide-linked glycoproteins, polypeptides modified on their carboxyl groups, and immunoconjugates of enzymes and liposomes is discussed in this review.

L49 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

AB In this presentation we describe two applications of new hydrolytically-degradable PEG derivs. The first involves preparation and characterization of degradable PEG hydrogels. These PEGs contain ester **linkages** and can be prepared by reaction of **PEG** carboxylic acids with PEG. The degradation rates of these gels can be fine-tuned by variation in mol. structure of the esters and in the degree of branching of the PEGs. The second application involves preparation of soluble **PEG-protein conjugates** in which the **PEG** is attached to the protein via a hydrolytically degradable ester **linkage**. The ester-containing PEGs are prepared by condensation of PEG carboxylic acids with small hydroxy-acids. Conversion to succinimidyl active esters permits coupling to amino groups of proteins. Varying the types of PEG acid and hydroxy-acid gives control over the rates of hydrolysis. Applications to drug delivery will be presented.

L49 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 3

AB The present invention relates to pegylated proteins, including modified Ig mols. mildly derivatized with polyethylene glycol. The pegylated Igs also contains a T cell epitope or a B cell epitope. Such "pegylated" Igs may be used to produce an enhanced immune response in the absence of adjuvant. In particular embodiments, the present invention relates to

**proteins conjugated** to polyethylene glycol via carbohydrate residues.

L49 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Physiol. active proteins, e.g., superoxide dismutase, are optimized for pharmaceutical use by covalently **linking** with a low diol polyalkylene oxide, e.g., **polyethylene glycol**, to increase their half-life and reduce immunogenicity. Also disclosed is a method of treatment of disease processes associated with the adverse effects on tissue of superoxide anions, such as ischemic events, reperfusion injury, trauma and inflammation. Preparation of methoxypolyethylene glycol N-succinimidyl succinate and its use for modifying superoxide dismutase, catalase, etc., were shown.

L49 ANSWER 8 OF 20 MEDLINE on STN

DUPLICATE 4

AB A novel **PEG linker** that employs a thiazolidine-2-thione group has been synthesized. Kinetic studies done on this compound demonstrate a relatively long half-life compared to those of traditional succinimidyl linkers. This new PEG derivative reacts with proteins under mild conditions and was utilized to conjugate bovine hemoglobin (bHb) to provide a **PEG amide-linked** protein. The physical characteristics of this conjugate were compared with those of the known **PEG carbamate-linked** bHb.

L49 ANSWER 9 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AB Purpose. Recombinant human granulocyte-colony stimulating factor (rhG-CSF) was covalently conjugated to both rat and human serum albumin (RSA and HSA respectively) to increase the circulating half life ( $t(1/2)$ ) of rhG-CSF.

Methods. Conjugates of RSA (MW 67,000) and HSA (MW 66,000) were prepared by **linking** the two proteins through a heterobifunctional maleimido-carboxyl **polyethylene glycol (PEG)** and were tested in the rat. The conjugates were injected intravenously (IV) at the equivalent dose of 50  $\mu$ g/kg of rhG-CSF, and white blood cell (WBC) counts and plasma concentrations of drug were determined. A comparison of pharmacokinetic parameters was made between rhG-CSF, the conjugates RSA-PEG-rhG-CSF and HSA-PEG-rhG-CSF, and a non-covalent mixture of rhG-CSF and HSA.

Results. The albumin-rhG-CSF conjugates are eliminated more slowly from the circulation. The clearance values are reduced from 0.839  $\pm$  0.121 ml/min/kg for rhG-CSF to 0.172  $\pm$  0.013 ml/min/kg for RSA-PEG-rhG-CSF and 0.141  $\pm$  0.005 ml/min/kg for HSA-PEG-rhG-CSF. WBC counts increased in both absolute number and duration as compared to rhG-CSF alone. The albumin rhG-CSF conjugates had enhanced serum stability relative to free rhG-CSF. The rate of degradation of the albumin conjugates incubated in rat Serum at 37 degrees C decreased five fold.

Conclusions. The results from the study show that specific conjugation of rhG-CSF to albumin decreases plasma clearance in vivo, causes increased WBC response, and increases serum stability as compared to free rhG-CSF.

L49 ANSWER 10 OF 20 MEDLINE on STN

DUPLICATE 5

AB The first examples of **PEG linkers** containing the highly fluorescent dansyl group have been synthesized. Quantum yields of these **PEG fluorescent linkers** (PFL) were determined and utilized in calculating the **PEG** number of various **protein conjugates**. The method was also shown to be applicable to lower molecular weight drugs as exemplified by taxol.

L49 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Covalent attachment of polyethylene glycol (PEG) to proteins increases plasma half life, increases resistance to proteolysis and reduces antigenicity/ immunogenicity. Such benefits have prompted the development of PEG-proteins as therapeutic agents. A novel method of activating PEG

with tresyl chloride, which attaches **PEG** to amino groups by a direct secondary amine **linkage**, without any coupling moiety (portion of the activated **PEG**) remaining in the PEG-protein construct have been investigated. Using erythropoietin and granulocyte-macrophage colony stimulating factor as the target proteins, this method has been compared with four other common methods of PEG activation: cyanuric acid, phenylchloroformate, carbonyldiimidazole and succinimidyl succinate. Either conservation of biol. activity or lack of toxic contaminants (or both) was inferior for the other methods.

L49 ANSWER 12 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN

AB Liposome aggregation is a major problem associated with the covalent attachment of proteins to liposomes. This report describes a procedure for coupling proteins to liposomes that results in little or no change in liposome size. This is achieved by incorporating appropriate levels of poly(ethylene glycol)-modified lipids into the liposomes. The studies employed thiolated avidin-D coupled to liposomes containing the thio-reactive lipid N-(4-(p-maleimidophenyl)butyryl)dipalmitoyl phosphatidylethanolamine (1 mol % of total lipid) and various amounts of MePEG-S-POPE (monomethoxypoly(ethylene glycol) **linked** to phosphatidylethanolamine via a succinate **linkage**). The influence of **PEG** chain length and density was also assessed. The presence of PEG on the surface of liposomes is shown to provide an effective method of inhibiting aggregation and the corresponding increase in liposome size during the covalent coupling of avidin-D. A balance between the size of the PEG used and the amount of PEG-lipid incorporated into the liposome had to be achieved in order to maintain efficient coupling. Optimal coupling efficiencies in combination with minimal aggregation effects were achieved using 2 mol % MePEG(2000)-S-POPE (PEG of 2000 MW) or 0.8 mol % MePEG(5000)-S-POPE (PEG of 5000 MW). At these levels, the presence of PEG did not affect the biotin binding activity of the covalently attached avidin. The ability of the resulting liposomes to specifically target to biotinylated cells is demonstrated.

L49 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Compds. for modifying polypeptides with PEG or other water-soluble organic polymers are described. The water-soluble polymer reagents include hydrazine, hydrazine carboxylate, semicarbazole, thiosemicarbazide, carbonic acid dihydrazide, carbazide, thiocarbazide, and arylhydrazide derivs. as well as oxylamine derivs. of water-soluble organic polymers, such as polyethylene glycol, polypropylene glycol, polyoxyethylated polyol, heparin, heparin fragments, dextran polysaccharides, polyamino acids, and polyvinyl alc. Kits for modifying polypeptides with the above water-soluble polymer reagents are also provided. Thus, erythropoietin was modified by oxidation and treatment with monomethoxypolyoxyethylene semicarbazide and the product was separated by chromatog. The antigenicity and the effect on hematocrit levels of the above derivs. were demonstrated.

L49 ANSWER 14 OF 20 MEDLINE on STN DUPLICATE 6

AB Covalent attachment of poly(ethylene glycol) (PEG) to **proteins** produces **conjugates** with altered/improved physicochemical and biological properties which depend upon the number of **PEG** chains **linked**. Quantification of the attached PEG is however not a trivial issue. The partition coefficient, K, of the PEG-**protein conjugate** in PEG/dextran two-phase systems provides a quantitative measure for the degree of modification. A linear relationship between log K and the number of PEG chains was observed in fractionated PEG-modified-granulocyte-macrophage colony stimulating factor conjugates having 1 to 3 substitutions. Furthermore, in mixtures of PEG-bovine-serum-albumin conjugates with increasing degrees of modification, a linear relationship was found between log K and n, the average substitution. The increment in log K per PEG chain added is protein specific and this suggests that the interactions between the PEG-

**protein conjugate** and the polymers in the phase system are more complex than just a simple affinity of the PEG for the PEG-rich top phase. Increasing the polymer concentration in the phase system produces larger increments in log K per PEG molecule attached and the proportionality between log K and number of PEG molecules is only compromised for conjugates with high degree of substitution when partitioned in biphasic systems of high concentration of polymers.

L49 ANSWER 15 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

AB US 5252714 A UPAB: 19931202

Polyalkylene glycol derivs. of formula  $R_1(CH_2)_2X(CH_2)_mX(CH_2)_2(OC(R_2)HCH_2)_nX(CH_2)_mX(CH_2)_2R_3$  (I) are new.  $R_1$  and  $R_3=CHO$ ,  $CH=NR_4$  or  $CH_2NHR_4$ ;  $R_4$ =an antibody;  $X=O$  or  $S$ ;  $R_2=H$  or 1-6C alkyl;  $n$ =an integer less than 10,000;  $m=2-6$ .

Also claimed is a process for amine modification comprising preparing an 'amine comprising substance' (II) in a solution and adding a cpd. (I;  $R_1=R_3=CHO$ ).

USE/ADVANTAGE - Cpd. (I;  $R_1=R_3=CHO$ ) may be used (a) to prepare polyalkylene glycol **conjugates** of **proteins**, especially antibodies, i.e. cpds. (I) where  $R_1$  and/or  $R_3=CH=NR_4$  or  $CH_2NHR_4$ , and (b) to **link** such proteins to aminated surfaces. In contrast to known reactive **polyethylene glycol** (PEG) derivs., PEG derivs. of type (I;  $R_1=R_3=CHO$ ) are not destroyed by water, are reactive in aqueous media, and react selectively with amino gps. Dwg. 0/0

L49 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Base treatment of **polyethylene glycol**-derivatized

superoxide dismutase in which the **polyethylene glycol** is **linked** to the protein via a succinyl bridge, removes the **polyethylene glycol** leaving a succinyl marker.

Exhaustive succinylation with d4-succinic anhydride completes the derivatization in order to minimize fractionation in proteolysis, chromatog., and desorption in the mass spectrometer. Production of peptides from the derivatized protein for high-resolution and high-resolution tandem MS allows identification of the site that had been derivatized by polyethylene glycol and the determination of the amount of polyethylene glycol originally at each site. The mass spectrometric strategy outlined herein can be applied to other proteins derivatized for therapeutic administration.

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AB Novelty: Novel **polyethylene glycol** (PEG)

**conjugates** of **proteins** produced by using unique **linkers** which connect the various free amino acid groups in a protein to PEG which circumvent the problems associated with the formation of other PEG **protein conjugates**. The protein interleukin-1 receptor antagonist (IL-1ra) and interleukin-1 (IL-1) conjugated to PEG are also provided. Biology: The PEG **protein conjugates** are physiologically active, substantially non-immunogenic and water-soluble having at least part of the biological activity of the **protein** which forms the **conjugate**. Chemistry: The **conjugate** of a **protein** is produced by condensing activated PEG (PEG wherein one hydroxy group has been replaced by an activated **linker**) with one or more of the free amino groups of the protein.

L49 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

AB Biol. active polypeptides and glycopolypeptides are conjugated at a reactive carbonyl or carboxylic acid group of the polypeptide with water-soluble polymers by a linkage containing a hydrazide or hydrazone functional group. The linkage preferably also includes an amino acid or peptide sequence. The conjugates represent a novel form of drug delivery

(no data). Methoxy-PEG (mPEG) was treated with phosgene and then reacted with  $\beta$ -alanine Et ester.HCl. The mPEG- $\beta$ -alanine Et ester product was treated with hydrazine under reflux for 6 h and the mPEG-hydrazide derivative containing  $\beta$ -Ala was **conjugated** to various **proteins**, e.g. activated chymotrypsin, activated bovine serum albumin, oxidized ovalbumin, oxidized human IgG, and activated G-CSF. The proteins were activated at the carboxyl groups with EDC (carbodiimide) or N-hydroxy-5-norbornene-2,3-dicarboximide. Carbohydrate groups were oxidized with NaIO<sub>4</sub> for activation. Extensive crosslinking of the proteins was prevented.

L49 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2005 ACS on STN

AB A bone growth factor, such as the transforming growth factor- $\beta$  (TGF- $\beta$ ), activin and bone morphogenetic **protein**, are **conjugated** a targeting mol. with bone affinity (tetracycline, calcein, bisphosphonate, estrogen, etc.). Conjugation is carried out using a **cross-linker**, preferably a synthetic hydrophilic polymer, such as **PEG**. A solution of 2  $\mu$ mol tetracycline in 1  $\mu$ mol bisepoxy-PEG was heated at 90°, followed by the addition of a solution of 100  $\mu$ g TGF- $\beta$ 2 in 0.02 M Na borate containing 0.02% SDS and 50% acetonitrile and pH adjustment to 9, to give the TGF- $\beta$ -PEG-tetracycline conjugate.

L49 ANSWER 20 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 7

AB A new type of functionalized derivatives of polyethylene glycol (PEG), namely succinimidyl carbonates (SC), were prepared and evaluated as reagents for preparation of **PEG-protein conjugates**. SC-activated PEGs showed high reactivity towards amino groups of lysine residues producing under mild conditions (pH 7.0 - 10.0, 25-degrees-C, 30 min) extensively modified proteins, in which **PEG** chains are **linked** to a polypeptide core through stable urethane (carbamate) linkages. A variety of proteins: chymotrypsin, trypsin, adenosine deaminase, asparaginase, arginase, hemoglobin were subjected to modifications with SC-PEG yielding conjugates with excellent preservation of biological/enzymatic activities.

=> log y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
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FULL ESTIMATED COST	109.12	126.86
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	ENTRY	SESSION
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COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS, ESBIODBASE, BIOTECHNO, WPIDS' ENTERED AT 15:21:21 ON 20 APR 2005  
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11 FILES IN THE FILE LIST



=> s peg or polyethylene glycol

FILE 'MEDLINE'

8959 PEG  
33678 POLYETHYLENE  
22000 GLYCOL  
9086 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W)GLYCOL)

L1 14753 PEG OR POLYETHYLENE GLYCOL

FILE 'SCISEARCH'

14973 PEG  
49789 POLYETHYLENE  
36174 GLYCOL  
11455 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W)GLYCOL)

L2 21749 PEG OR POLYETHYLENE GLYCOL

FILE 'LIFESCI'

2228 PEG  
4480 "POLYETHYLENE"  
5906 "GLYCOL"  
3000 POLYETHYLENE GLYCOL  
("POLYETHYLENE" (W) "GLYCOL")

L3 4068 PEG OR POLYETHYLENE GLYCOL

FILE 'BIOTECHDS'

6044 PEG  
3945 POLYETHYLENE  
4515 GLYCOL  
3036 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W)GLYCOL)

L4 7723 PEG OR POLYETHYLENE GLYCOL

FILE 'BIOSIS'

11854 PEG  
23925 POLYETHYLENE  
32559 GLYCOL  
14532 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W)GLYCOL)

L5 20621 PEG OR POLYETHYLENE GLYCOL

FILE 'EMBASE'

8915 PEG  
18670 "POLYETHYLENE"  
28246 "GLYCOL"  
8533 POLYETHYLENE GLYCOL  
("POLYETHYLENE" (W) "GLYCOL")

L6 14197 PEG OR POLYETHYLENE GLYCOL

FILE 'HCAPLUS'

31703 PEG  
323028 POLYETHYLENE  
328789 GLYCOL  
90639 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W)GLYCOL)

L7 108449 PEG OR POLYETHYLENE GLYCOL

FILE 'NTIS'

321 PEG  
5591 POLYETHYLENE  
1894 GLYCOL  
253 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W)GLYCOL)

L8 499 PEG OR POLYETHYLENE GLYCOL

FILE 'ESBIOBASE'

3672 PEG  
4796 POLYETHYLENE  
6391 GLYCOL  
3005 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W) GLYCOL)  
L9 5248 PEG OR POLYETHYLENE GLYCOL

FILE 'BIOTECHNO'

2816 PEG  
4665 POLYETHYLENE  
7260 GLYCOL  
3167 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W) GLYCOL)  
L10 4868 PEG OR POLYETHYLENE GLYCOL

FILE 'WPIDS'

15802 PEG  
197943 POLYETHYLENE  
109036 GLYCOL  
26705 POLYETHYLENE GLYCOL  
(POLYETHYLENE(W) GLYCOL)  
L11 39735 PEG OR POLYETHYLENE GLYCOL

TOTAL FOR ALL FILES

L12 241910 PEG OR POLYETHYLENE GLYCOL

=> s (bifunctional or multifunctional)

FILE 'MEDLINE'

6151 BIFUNCTIONAL  
7414 MULTIFUNCTIONAL  
L13 13490 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'SCISEARCH'

10095 BIFUNCTIONAL  
10543 MULTIFUNCTIONAL  
L14 20478 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'LIFESCI'

2477 BIFUNCTIONAL  
3029 MULTIFUNCTIONAL  
L15 5485 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'BIOTECHDS'

825 BIFUNCTIONAL  
372 MULTIFUNCTIONAL  
L16 1186 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'BIOSIS'

6664 BIFUNCTIONAL  
7286 MULTIFUNCTIONAL  
L17 13877 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'EMBASE'

5399 BIFUNCTIONAL  
6661 MULTIFUNCTIONAL  
L18 12003 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'HCAPLUS'

18724 BIFUNCTIONAL  
17705 MULTIFUNCTIONAL  
L19 36209 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'NTIS'  
249 BIFUNCTIONAL  
528 MULTIFUNCTIONAL  
L20 775 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'ESBIOBASE'  
2806 BIFUNCTIONAL  
4389 MULTIFUNCTIONAL  
L21 7158 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'BIOTECHNO'  
2812 BIFUNCTIONAL  
3539 MULTIFUNCTIONAL  
L22 6314 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

FILE 'WPIDS'  
5002 BIFUNCTIONAL  
11126 MULTIFUNCTIONAL  
L23 16020 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

TOTAL FOR ALL FILES  
L24 132995 (BIFUNCTIONAL OR MULTIFUNCTIONAL)

=> s l24(5a)l12  
FILE 'MEDLINE'  
L25 24 L13(5A)L1

FILE 'SCISEARCH'  
L26 39 L14(5A)L2

FILE 'LIFESCI'  
L27 11 L15(5A)L3

FILE 'BIOTECHDS'  
L28 11 L16(5A)L4

FILE 'BIOSIS'  
L29 27 L17(5A)L5

FILE 'EMBASE'  
L30 26 L18(5A)L6

FILE 'HCAPLUS'  
L31 114 L19(5A)L7

FILE 'NTIS'  
L32 1 L20(5A)L8

FILE 'ESBIOBASE'  
L33 11 L21(5A)L9

FILE 'BIOTECHNO'  
L34 15 L22(5A)L10

FILE 'WPIDS'  
L35 31 L23(5A)L11

TOTAL FOR ALL FILES  
L36 310 L24(5A) L12

=> s l36 and (link? or crosslink? or conjugat?)  
FILE 'MEDLINE'  
382837 LINK?  
10817 CROSSLINK?

75574 CONJUGAT?  
 L37 18 L25 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'SCISEARCH'  
 411725 LINK?  
 28041 CROSSLINK?  
 106571 CONJUGAT?  
 L38 24 L26 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'LIFESCI'  
 128013 LINK?  
 4165 CROSSLINK?  
 22489 CONJUGAT?  
 L39 7 L27 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'BIOTECHDS'  
 30772 LINK?  
 2898 CROSSLINK?  
 8285 CONJUGAT?  
 L40 8 L28 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'BIOSIS'  
 340098 LINK?  
 14929 CROSSLINK?  
 84018 CONJUGAT?  
 L41 17 L29 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'EMBASE'  
 339891 LINK?  
 11291 CROSSLINK?  
 72830 CONJUGAT?  
 L42 18 L30 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'HCAPLUS'  
 418245 LINK?  
 249495 CROSSLINK?  
 207032 CONJUGAT?  
 L43 55 L31 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'NTIS'  
 32483 LINK?  
 3105 CROSSLINK?  
 4589 CONJUGAT?  
 L44 1 L32 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'ESBIOBASE'  
 144684 LINK?  
 4417 CROSSLINK?  
 25047 CONJUGAT?  
 L45 9 L33 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'BIOTECHNO'  
 173624 LINK?  
 4956 CROSSLINK?  
 24320 CONJUGAT?  
 L46 10 L34 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 FILE 'WPIDS'  
 444068 LINK?  
 77310 CROSSLINK?  
 44496 CONJUGAT?  
 L47 21 L35 AND (LINK? OR CROSSLINK? OR CONJUGAT?)  
 TOTAL FOR ALL FILES

L48 188 L36 AND (LINK? OR CROSSLINK? OR CONJUGAT?)

=> s l48 not 1999-2005/py

FILE 'MEDLINE'

3325502 1999-2005/PY

L49 5 L37 NOT 1999-2005/PY

FILE 'SCISEARCH'

6385167 1999-2005/PY

L50 8 L38 NOT 1999-2005/PY

FILE 'LIFESCI'

647543 1999-2005/PY

L51 3 L39 NOT 1999-2005/PY

FILE 'BIOTECHDS'

126993 1999-2005/PY

L52 0 L40 NOT 1999-2005/PY

FILE 'BIOSIS'

3277108 1999-2005/PY

L53 5 L41 NOT 1999-2005/PY

FILE 'EMBASE'

2914482 1999-2005/PY

L54 5 L42 NOT 1999-2005/PY

FILE 'HCAPLUS'

6178020 1999-2005/PY

L55 15 L43 NOT 1999-2005/PY

FILE 'NTIS'

108997 1999-2005/PY

L56 1 L44 NOT 1999-2005/PY

FILE 'ESBIOBASE'

1817014 1999-2005/PY

L57 1 L45 NOT 1999-2005/PY

FILE 'BIOTECHNO'

611346 1999-2005/PY

L58 4 L46 NOT 1999-2005/PY

FILE 'WPIDS'

5325720 1999-2005/PY

L59 1 L47 NOT 1999-2005/PY

TOTAL FOR ALL FILES

L60 48 L48 NOT 1999-2005/PY

=> dup rem l60

PROCESSING COMPLETED FOR L60

L61 21 DUP REM L60 (27 DUPLICATES REMOVED)

=> d tot

L61 ANSWER 1 OF 21 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
STN DUPLICATE 1

TI An Os(byp)(2)ClPyCH(2)NHpoly(allylamine) hydrogel mediator for enzyme  
wiring at electrodes

SO ELECTROCHIMICA ACTA, (JAN 1998) Vol. 43, No. 23, pp. 3525-3531.

Publisher: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE,  
KIDLINGTON, OXFORD OX5 1GB, ENGLAND.

ISSN: 0013-4686.

AU Danilowicz C (Reprint); Corton E; Battaglini F; Calvo E J  
AN 1998:675541 SCISEARCH

L61 ANSWER 2 OF 21 MEDLINE on STN DUPLICATE 2  
TI Combined use of carboxyl-directed protein pegylation and vector-mediated  
blood-brain barrier drug delivery system optimizes brain uptake of  
brain-derived neurotrophic factor following intravenous administration.  
SO Pharmaceutical research, (1998 Apr) 15 (4) 576-82.  
Journal code: 8406521. ISSN: 0724-8741.  
AU Pardridge W M; Wu D; Sakane T  
AN 1998249553 MEDLINE

L61 ANSWER 3 OF 21 MEDLINE on STN DUPLICATE 3  
TI Amino acids and peptides. XXXIII. A bifunctional poly(ethylene glycol)  
hybrid of laminin-related peptides.  
SO Biochemical and biophysical research communications, (1998 Jul 30) 248 (3)  
485-9.  
Journal code: 0372516. ISSN: 0006-291X.  
AU Maeda M; Kawasaki K; Mu Y; Kamada H; Tsutsumi Y; Smith T J; Mayumi T  
AN 1998369575 MEDLINE

L61 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
TI Nonimmunogenic MHC-blocking peptides  
SO PCT Int. Appl., 37 pp.  
CODEN: PIXXD2  
IN Wiley, Don C.; Bouvier, Marlene  
AN 1997:145226 HCAPLUS  
DN 126:139883

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9700084	A1	19970103	WO 1996-US10396	19960614
	W: CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

L61 ANSWER 5 OF 21 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN  
TI Immobilisation and release of hydroxylic compounds, e.g. oligo  
nucleotide(s) - using **linker** compound containing protected  
amine which, when deprotected, attacks intramolecular phosphate tri ester.  
PI US 5688940 A 19971118 (199801)\* 9 C07H021-00  
IN LYTTLE, M H

L61 ANSWER 6 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN  
TI Phospholipid derivatized with **peg bifunctional linker** and liposome containing it.  
SO Official Gazette of the United States Patent and Trademark Office Patents,  
(Sept. 17, 1996) Vol. 1190, No. 3, pp. 2098. print.  
CODEN: OGUPE7. ISSN: 0098-1133.  
AU Tagawa, T. [Inventor]; Awane, K. [Inventor]; Nagaike, K. [Inventor]  
AN 2002:49522 BIOSIS

L61 ANSWER 7 OF 21 MEDLINE on STN DUPLICATE 4  
TI Interactions and applications of soluble heterobifunctional affinity  
chelating polymers in immobilized metal affinity chromatography.  
SO Journal of molecular recognition : JMR, (1996 Sep-Dec) 9 (5-6) 733-7.  
Journal code: 9004580. ISSN: 0952-3499.  
AU Ehteshami G; Porath J; Guzman R  
AN 97317982 MEDLINE

L61 ANSWER 8 OF 21 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
STN DUPLICATE 5  
TI FIBROBLAST AGGREGATION BY SUSPENSION WITH **CONJUGATES** OF  
POLY(ETHYLENE GLYCOL) AND RGD  
SO BIOTECHNOLOGY AND BIOENGINEERING, (20 MAY 1996) Vol. 50, No. 4, pp.  
349-356.

ISSN: 0006-3592.

AU DAI W G; SALTZMAN W M (Reprint)  
AN 96:326901 SCISEARCH

L61 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
TI Kinetics and mechanisms of multifunctional monomer photopolymerizations  
SO Polymeric Materials Science and Engineering (1996), 75, 202-203  
CODEN: PMSEDG; ISSN: 0743-0515  
AU Anseth, Kristi S.  
AN 1996:498087 HCAPLUS  
DN 125:168731

L61 ANSWER 10 OF 21 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on  
STN  
TI CROSS-**LINKED** POLY(ETHYLENE OXIDE) FOR DRUG-RELEASE SYSTEMS  
SO MACROMOLECULAR SYMPOSIA, (JAN 1996) Vol. 103, pp. 193-211.  
ISSN: 1022-1360.  
AU BELCHEVA N (Reprint); STAMENOVA R; TSVETANOV C; LAMBOV N; TSANKOV S; SMID  
J  
AN 96:151445 SCISEARCH

L61 ANSWER 11 OF 21 LIFESCI COPYRIGHT 2005 CSA on STN  
TI Phospholipid derivatized with **PEG bifunctional  
linker** and liposome containing it  
SO (19960917) . US Patent 5556948; US Cl. 530/391.9 424/178.1 424/450  
530/391.1 548/119.  
AN 97:108487 LIFESCI

L61 ANSWER 12 OF 21 NTIS COPYRIGHT 2005 NTIS on STN  
TI Multifunctional Acrylates and the Synthesis Thereof. Patent.  
NR PB95-178448/XAB; PAT-APPL-7-828 316, PATENT-5 380 901  
7p; Filed 30 Jan 92, patented 10 Jan 95  
PD 19950110  
AU Antonucci, J. M.; Stansbury, J. W.; Cheng, G. W.  
AN 1995(17):03702 NTIS

L61 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
TI Gels containing cells for augmenting tissues  
SO PCT Int. Appl., 31 pp.  
CODEN: PIXXD2

IN Estridge, Trudy D.; Rao, Prema R.  
AN 1995:969690 HCAPLUS  
DN 123:350408

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----
PI WO 9526761	A1	19951012	WO 1995-US3991	19950331
W: AU, BR, CA, CN, JP, MX, NZ				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2187109	AA	19951012	CA 1995-2187109	19950331
AU 9522029	A1	19951023	AU 1995-22029	19950331
AU 682266	B2	19970925		
EP 754065	A1	19970122	EP 1995-914983	19950331
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10501706	T2	19980217	JP 1995-525855	19950331

L61 ANSWER 14 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
TI Activity and Stability of Enzymes Incorporated into Acrylic Polymers  
SO Journal of the American Chemical Society (1995), 117(17), 4843-50  
CODEN: JACSAT; ISSN: 0002-7863  
AU Yang, Zhen; Mesiano, Anita J.; Venkatasubramanian, Srikanth; Gross, Susan  
H.; Harris, J. Milton; Russell, Alan J.  
AN 1995:520854 HCAPLUS  
DN 123:78410

L61 ANSWER 15 OF 21 MEDLINE on STN . DUPLICATE 6  
 TI Cell-binding peptides **conjugated** to poly(ethylene glycol)  
 promote neural cell aggregation.  
 SO Bio/technology (Nature Publishing Company), (1994 Aug) 12 (8) 797-801.  
 Journal code: 8309273. ISSN: 0733-222X.  
 AU Dai W; Belt J; Saltzman W M  
 AN 94318246 MEDLINE

L61 ANSWER 16 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Novel heterobifunctionalized polystyrene-polyethylene glycol resin for  
 simultaneous preparation of free and immobilized peptides and biological  
 activity detected by confocal microscopy  
 SO Letters in Peptide Science (1994), 1(3), 117-26  
 CODEN: LPSCEM; ISSN: 0929-5666  
 AU Fleckenstein, Burkhard; Wiesmueller, Karl-Heinz; Brich, Manfred; Jung,  
 Guenther  
 AN 1995:390436 HCAPLUS  
 DN 122:315066

L61 ANSWER 17 OF 21 MEDLINE on STN DUPLICATE 7  
 TI AUR Memorial Award 1993. A drug system (PDH) for interventional radiology.  
 Synthesis, properties, and efficacy.  
 SO Investigative radiology, (1993 Dec) 28 (12) 1083-9.  
 Journal code: 0045377. ISSN: 0020-9996.  
 AU Weissleder R; Bogdanov A; Frank H; Nossiff N; Bogdanova A; Schaffer B K;  
 Brady T; Wittenberg J  
 AN 94140526 MEDLINE

L61 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI A **crosslinked** polyether solid electrolyte film made by one-step  
 reaction at room temperature  
 SO Gaofenzi Cailiao Kexue Yu Gongcheng (1993), 9(5), 122-6  
 CODEN: GCKGEI; ISSN: 1000-7555  
 AU Xia, Duwei; Zhang, Zhaoxi; Hou, Xinping  
 AN 1994:299924 HCAPLUS  
 DN 120:299924

L61 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Novel hydrophilic and hydrophobic acrylic monomers and oligomers for  
 dental and medical applications  
 SO Polymer Preprints (American Chemical Society, Division of Polymer  
 Chemistry) (1992), 33(2), 522-3  
 CODEN: ACPPAY; ISSN: 0032-3934  
 AU Antonucci, J. M.; Sansbury, J. W.; Cheng, G. W.  
 AN 1994:165612 HCAPLUS  
 DN 120:165612

L61 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Preparation of polyethylene glycol derivatives with two different  
 functional groups at the termini  
 SO Polymer Preprints (American Chemical Society, Division of Polymer  
 Chemistry) (1986), 27(1), 1-2  
 CODEN: ACPPAY; ISSN: 0032-3934  
 AU Zalipsky, Shmuel; Barany, George  
 AN 1986:406904 HCAPLUS  
 DN 105:6904

L61 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
 TI Combustion inhibitor for gas-producing charges  
 IN Bohn, James N.; Sandhoff, Allan G.  
 AN 1959:14076 HCAPLUS  
 DN 53:14076  
 OREF 53:2627a-c,2628a  
 PATENT NO.                      KIND      DATE                      APPLICATION NO.                      DATE



PI US 2858289 19581028 US

=> d ab 3,20

L61 ANSWER 3 OF 21 MEDLINE on STN DUPLICATE 3  
AB A novel amino acid type poly(ethylene glycol) (aaPEG) was prepared and its application as a drug-carrier was examined. The peptides, Pro-Asp-Ser-Gly-Arg (PDSGR) and Tyr-Ile-Gly-Ser-Arg (YIGSR) which are active fragments of Laminin (a cell adhesion protein), were previously reported to be inhibitors of experimental metastasis. Both peptides were **conjugated** with aaPEG (average molecular weight, 3,000) to prepare a **bifunctional** peptide-PEG hybrid. The hybrid, PDSGR-aaPEG-YIGSR, was manually prepared by the solid-phase fluorenylmethyloxycarbonyl (Fmoc) strategy. The antimetastatic activity of the peptides in mice was not lost when **conjugated** to form a larger aaPEG molecule. YIGSR (375 nmol) and PDSGR (375 nmol and 750 nmol) did not demonstrate antimetastatic activity, but a mixture of PDSGR (187 nmol) and YIGSR (187 nmol) exhibited an inhibitory effect. The inhibitory effect of the hybrid (187 nmol) was more potent than that of the mixture (PDSGR and YIGSR), indicating that the inhibitory effect of the peptides was potentiated by hybrid formation with aaPEG.

L61 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2005 ACS on STN  
AB **Bifunctional polyethylene glycol** (I) was treated with SOCl<sub>2</sub> and pyridine in PhMe to give chlorinated I, which was treated with Et isocyanatoacetate in the presence of Et<sub>3</sub>N. The polymer product was treated with NaN<sub>3</sub>, saponified, and separated on a column containing DEAE-Sephadex in the tetraborate form to give N<sub>3</sub>(CH<sub>2</sub>CH<sub>2</sub>O)nCO<sub>2</sub>NHCH<sub>2</sub>CO<sub>2</sub>H [102778-01-8], which was dissolved in a 4:1 EtOH-CH<sub>2</sub>Cl<sub>2</sub> mixture. After adding 10% Pd/C, the mixture was hydrogenated overnight at 50 psi to give H<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>O)nCO<sub>2</sub>NHCH<sub>2</sub>CO<sub>2</sub>H, which was treated with N,N-diisopropyl ethylamine and di-tert-Bu pyrocarbonate to give tert-BuO<sub>2</sub>CNH(CH<sub>2</sub>CH<sub>2</sub>O)nCO<sub>2</sub>NHCH<sub>2</sub>CO<sub>2</sub>H [102778-02-9]. Use of the polymers in peptide synthesis and the preparation of protein **conjugates** and polymeric drugs was discussed.

=> s heterofunctional

FILE 'MEDLINE'

L62 29 HETEROFUNCTIONAL

FILE 'SCISEARCH'

L63 118 HETEROFUNCTIONAL

FILE 'LIFESCI'

L64 10 HETEROFUNCTIONAL

FILE 'BIOTECHDS'

L65 15 HETEROFUNCTIONAL

FILE 'BIOSIS'

L66 34 HETEROFUNCTIONAL

FILE 'EMBASE'

L67 25 HETEROFUNCTIONAL

FILE 'HCAPLUS'

L68 298 HETEROFUNCTIONAL

FILE 'NTIS'

L69 7 HETEROFUNCTIONAL

FILE 'ESBIOBASE'  
L70 19 HETEROFUNCTIONAL

FILE 'BIOTECHNO'  
L71 17 HETEROFUNCTIONAL

FILE 'WPIDS'  
L72 52 HETEROFUNCTIONAL

TOTAL FOR ALL FILES  
L73 624 HETEROFUNCTIONAL

=> s 112 and 173

FILE 'MEDLINE'  
L74 8 L1 AND L62

FILE 'SCISEARCH'  
L75 10 L2 AND L63

FILE 'LIFESCI'  
L76 0 L3 AND L64

FILE 'BIOTECHDS'  
L77 1 L4 AND L65

FILE 'BIOSIS'  
L78 5 L5 AND L66

FILE 'EMBASE'  
L79 5 L6 AND L67

FILE 'HCAPLUS'  
L80 21 L7 AND L68

FILE 'NTIS'  
L81 0 L8 AND L69

FILE 'ESBIOBASE'  
L82 3 L9 AND L70

FILE 'BIOTECHNO'  
L83 4 L10 AND L71

FILE 'WPIDS'  
L84 6 L11 AND L72

TOTAL FOR ALL FILES  
L85 63 L12 AND L73

=> s 185 not 1999-2005/py

FILE 'MEDLINE'  
3325502 1999-2005/PY  
L86 1 L74 NOT 1999-2005/PY

FILE 'SCISEARCH'  
6385167 1999-2005/PY  
L87 2 L75 NOT 1999-2005/PY

FILE 'LIFESCI'  
647543 1999-2005/PY  
L88 0 L76 NOT 1999-2005/PY

FILE 'BIOTECHDS'  
126993 1999-2005/PY

L89 0 L77 NOT 1999-2005/PY

FILE 'BIOSIS'

3277108 1999-2005/PY

L90 1 L78 NOT 1999-2005/PY

FILE 'EMBASE'

2914482 1999-2005/PY

L91 1 L79 NOT 1999-2005/PY

FILE 'HCAPLUS'

6178020 1999-2005/PY

L92 3 L80 NOT 1999-2005/PY

FILE 'NTIS'

108997 1999-2005/PY

L93 0 L81 NOT 1999-2005/PY

FILE 'ESBIOBASE'

1817014 1999-2005/PY

L94 0 L82 NOT 1999-2005/PY

FILE 'BIOTECHNO'

611346 1999-2005/PY

L95 1 L83 NOT 1999-2005/PY

FILE 'WPIDS'

5325720 1999-2005/PY

L96 0 L84 NOT 1999-2005/PY

TOTAL FOR ALL FILES

L97 9 L85 NOT 1999-2005/PY

=> dup rem 197

PROCESSING COMPLETED FOR L97

L98 4 DUP REM L97 (5 DUPLICATES REMOVED)

=> d tot

L98 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2005 ACS on STN

TI Incorporation of **PEG**-proteins into polymers.

SO Book of Abstracts, 213th ACS National Meeting, San Francisco, April 13-17 (1997), POLY-182 Publisher: American Chemical Society, Washington, D. C. CODEN: 64AOAA

AU LeJeune, K. E.; Panza, J.; Russell, A. J.

AN 1997:164107 HCAPLUS

L98 ANSWER 2 OF 4 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 1

TI Incorporation of poly(ethylene glycol) proteins into polymers

SO ACS SYMPOSIUM SERIES, (FEB 1997) Vol. 680, pp. 134-144. Publisher: AMER CHEMICAL SOC, 1155 SIXTEENTH ST NW, WASHINGTON, DC 20036. ISSN: 0097-6156.

AU Panza J L (Reprint); LeJeune K E; Venkatasubramanian S; Russell A J

AN 1998:12667 SCISEARCH

L98 ANSWER 3 OF 4 MEDLINE on STN DUPLICATE 2

TI Selective production of hybridoma cells: antigenic-based pre-selection of B lymphocytes for electrofusion with myeloma cells.

SO Biochimica et biophysica acta, (1990 Dec 10) 1055 (3) 199-206. Journal code: 0217513. ISSN: 0006-3002.

AU Tomita M; Tsong T Y

AN 91091428 MEDLINE